The Builder.

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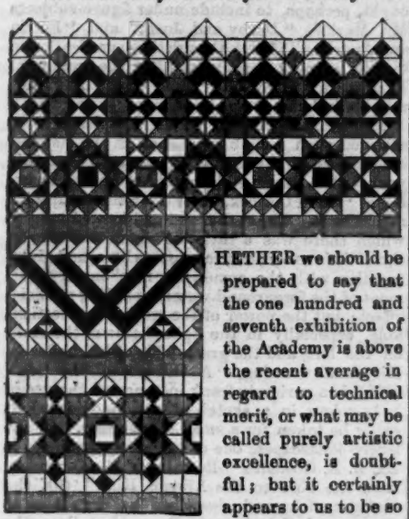
Exhibition of the Royal Academy.



WHETHER we should be prepared to say that the one hundred and seventh exhibition of the Academy is above the recent average in regard to technical merit, or what may be called purely artistic excellence, is doubtful; but it certainly appears to us to be so in regard to the interest of the subjects. The usual proportion of mediocrities there is, and we cannot name any work, either, which is pre-eminently the picture of the year from any unusual power or elevation of style. But among the works which, to the initiated, constitute the exhibition, there is a larger proportion than usual which show a marked individuality and even novelty of subject, feeling, and treatment, and have an interest beyond the mere fact of successful execution. The number of utterly uninteresting portraits, too, is smaller than usual in proportion to those to which the character of the sitter or the talent of the artist gives a general interest. Some well-known exhibitors interest us by an unsurpassed excellence in the class of work they have long made their own, and some, perhaps, still more by appearing in an artistic garb different from that which they have been wont to wear. The wish of the Council precludes, in our present issue, any detailed notice of the pictures, to which, however, we shall return at leisure. We may just mention among the points of the collection Mr. Tadema's large work, "The Sculpture Gallery," a companion to his last year's picture; Mr. Millais's "Fringe of the Moor," the most broadly treated landscape he has shown us; Mr. Stone's "Sain et Sauf," a work beyond his usual key in dramatic interest and feeling; Mr. Leslie's "School Revisited," which he has seldom equalled; and Mr. Sant's three dear young English girls in bright morning toilets, engaged over the produce of "the early post." Mr. Leighton's contributions include one remarkable picture, "An Eastern Slinger scaring Birds from the Corn"; but we scarcely think this artist has done himself justice, the last year or two. Mr. Frith is strong in single figures, life-size; Mr. Morris and Mr. Boughton fulfil the promise of earlier work; Mr. Hook and Mr. H. Moore are as much as ever "at sea," and Mr. Brett is superb in a "Scilly Isle" work, which even throws last year's into the shade. Mr. Poole is at his best; and the same may be said of Mr. and Mrs. Ward; Mr. Marks and M. Tissot discourse excellent humour in their respective keys; but we must for the present cut short what threatens to be a long list. Two portraits, that of "Robert Browning," by Mr. Lehmann, and "Charles Darwin," by Mr. Ouless, will be looked at with interest by many to whom the originals, not unworthily depicted here, have for some time been the leading spirits in the realms of English poetry and English science respectively.

Our present duty is to devote what time we have to our own corner of the exhibition, and chronicle the architecture. We have generally given the first place to ecclesiastical architecture, as the sphere in which the artistic side of professional work has most scope for development. The architectural room is pretty strong in churches. The three fine coloured drawings, executed by Mr. Haig, from Mr. Burges's designs for the decoration of St. Paul's (952, 995, 1005), serve to convey a far better idea of the scheme than Mr. Burges's model in last year's exhibition. And in certain points we are bound to say that they are more in favour of it than the model, as regards the total effect as a system of coloured decoration. The effect is not crude nor glaring as a whole, an idea which the model decisively gave, partly from its want of aërial perspective. Of course, it may be said that the colourist can cook up this in his drawing; but we see no reason to think that the toning effect is much greater here than it would be in the building. But if we are asked whether the effect was worth the money and the process of hacking the interior to pieces, that is another thing. Good as the effect of these drawings is (the general effect, be it observed), we have to see what an equally able artist could make of a view of the cathedral with the present stone walls, and merely decorated with mosaic and stained glass. It might possibly be found to make a much better picture than these. As to the details of the ornament we adhere to our previous opinion. They are incongruous and far too Mediævalising in spirit. In the dome the old heresy of painted architecture is continued, almost as if in imitation of Thornhill; the panels between filled with stiff-looking saints on a gold ground. The frieze just above the whispering-gallery, a kind of paradisaical *olla podrida* of trees and boy-angels, is far too light and unarchitectural in character for the heavy treatment of the dome over it. However, these drawings ought to be looked at, and are no doubt an appeal to the public verdict for the architect's justification. They will be more likely to make converts than the model, though we cannot profess to be of the number.

A design for the choir and east-end decoration of the same cathedral is exhibited by its custodian, Mr. Penrose, in a drawing made by Mr. Groom: the design made in 1872 for its completion and decoration. This is much more purely Renaissance in feeling than that of Mr. Burges, and depending more on decorative design, and little on figures. The design of the ceiling is nearly that which has been partially and experimentaliy carried out in a part of the choir: the pavement is an elaborate marble inlay; the piers and arcade of the ground-story are untouched, but coloured marble is introduced in the attic. The need of something more to connect the ceiling and floor decoration is apparent here, the more so as the drawing is rather correct and brilliant than artistic in effect: it is a purely architectural drawing, in short. We should say the ceiling was a little too pronounced in its blue and gold; and that a quieter treatment of this portion would render the chromatic void in the ground story less apparent. The style of the decoration is more in keeping with the building than that of Mr. Burges.

Two of the competitive designs for the church at Montmartre are represented; that of Messrs. Spiers and Phipps, "honourably mentioned," by three drawings, west front, exterior and interior perspectives (984, 1,014, 1,045); and that of Messrs. Lee & Smith by the west front and side elevation (932, 975). They are sufficiently different, the former representing modern Renaissance of a French type, the latter a somewhat florid and also French edition of late geometric Gothic. The drawings of the first are beyond criticism as drawings; we cannot say the design pleases us much. We have no love for the phase of Classic selected, which is, to our thinking, not very refined, nor is there shown in its treatment that power of combining rather incongruous detail into a complete whole which some of the French architects of the day possess in a high degree. The west front of the second-named design looks well, and the treatment of the towers, on a very effective plan, is very good; the side elevation consists rather in drawing than in design. Sir Gilbert Scott sends what he modestly terms "an attempt" at the restoration of the north transept portal of Westminster Abbey, exhibited in a beautifully executed pen-drawing; the main point of the restoration consists in the removal of the archmould inserted in the Perpendicular period, in the centre portal, replacing it with mouldings of the same period on the rest of the doorway, and highly decorated with carving. The drawing will serve a good purpose if it only calls attention to the curiously-patched state of the portal at present, which we suspect has been overlooked by many even who are well acquainted with the building generally. Taking the rest in their numerical order, we notice a carefully-finished pen-drawing, representing a restoration of St. Edward's Shrine, in Westminster Abbey (924), by Mr. Longfield, in which the rich jewelled effect of the work is about as well conveyed as pen and ink can be made to do it. Mr. Basil Champney's Matfield Church (928) is a pretty specimen of modern Antique, in the shape of a plain village church. Mr. J. Brooke's Chislehurst Church (935) shows the architect's usual signature in the shape of a massive and studiously plain tower, treated with simple and picturesque effect,—not equal to some other specimens, however. Mr. J. D. Sedding's proposed "Memorial Church to Lord John Manners,

at Newmarket" (934), shown in a very neat refined pen-drawing, is a simple, quiet design, above the average type, treated with great simplicity and in a true Gothic spirit, and with a degree of originality not easy to define, but not to be mistaken. A little more might be made of the tower. Mr. G. G. Scott's interior, called a "Design for a Memorial Chapel" (938), we cannot say keeps up the prestige of the name; the drawing is very neat and unimpeachable, but the design is simply a reproduction of Late Gothic features. Mr. Somers Clarke, jun., sends a good drawing of the proposed additions to the chancel of St. Peter's Church, Brighton (940), which does not, however, make it quite clear what the additions are. Mr. J. O. Scott's "St. Paul's, Manchester" (947), is an exterior view showing a somewhat novel termination of the tower; two high-pitched gables at right angles with a spirelet or flèche at the intersection. Mr. Pearson's "St. John the Evangelist, Red Lion-square" (955: now building), is a water-colour interior view of a church with brick walls and stone dressings, stone groins to the quadripartite vault and brick filling; the whole is solid and monumental without being heavy. Mr. G. G. Scott's design for "improving" the Parish Church of Hampstead (956) means, we suppose, simply the addition of coloured decoration, as shown in the coloured view of the interior; if there are any structural alterations there is no indication wherein they consist. The "South-west View of the Church of St. Paul in the Via Nazionale, Rome," for the use of the American Church, by Mr. Street (963), exhibits a return to the Italian particoloured Gothic style, which the architect had for a long time deserted; there is hardly much to remark in it; we should be curious to know on what grounds the Americans in Rome are given an Italian design, when the English residents were given a distinctly *Street-ish* one. Mr. H. P. Horner sends a small quiet exterior in water-colour of a church designed for a site in Stanley Park, Liverpool; a reversion to the Old English Gothic type of which we have nearly lost sight in these days; a very pleasingly-proportioned spire, and a kind of germ of a transept formed by one window gable breaking the line of the side elevation, form the main features. Mr. Deshon's interior of a "Missionary Chapel for an Island in the South Pacific" (961), is a very good drawing: the interior is rather studiously barn-like in its homeliness; whether or no this homely character is an additional attraction to the peaceful savage, we, of course, cannot say. The design submitted in the recent select competition for a proposed new bell-tower to Christ Church, Oxford, by Mr. Jackson (997), deserves high praise; it is a fine pen-drawing, showing the "quad" and the tower in the angle, a low-proportioned structure, with massive angle turrets and windows repeated in three stages of similar design; it has much the look of a good old example. Mr. Sulman's "Congregational Church at Caterham" (1,017) is satisfactory but not very original; Messrs. Badley & Garner's interior of St. Augustine, near Manchester, original but not very satisfactory. A moulded and coloured wood cornice forms the springing to a pointed barrel-vault of wood, powdered with stars on a blue ground; the piers are simple and massive in character, with masonry in irregular bands of two tints. The interior of the "Chapel of St. Francis's Home for Boys, Shefford," by Mr. Nicoll (1,034), is as homely and bare-looking, almost, as Mr. Deshon's "Mission Chapel"; neither of them inviting places of worship. Mr. Heffer's interior of a design for a proposed Cathedral of St. Peter, Liverpool, is a neat drawing, tinted in Indian ink; the style is a debased Classic. Mr. E. Sharpe sends a drawing of the "North Transept of the Collegiate Church of St. Jean-au-Bois, Compiègne" (1039), an early vault on preposterously stilted arches, admirably drawn, as its author well knows how to draw; the colouring deserves mention, as being most luminous and artistic in effect. The "Chapel of St. Mary and St. Nicholas, Lancing" (1,046), in course of erection from the designs of Mr. Carpenter, is a fine piece of strictly orthodox reproduction of Early Decorated Gothic in a large and finely-proportioned interior. We shall have more to say as to other architectural designs in the room.

Legacy for Belgian Art.—The son of the Belgian sculptor, Godecharb, has just died, leaving about 600,000*f.*, the interest of which is to be applied to the annual endowment of young Belgian sculptors.

THE SOCIETY OF PAINTERS IN WATER-COLOURS.

IN our last number we gave a view of the new front of the premises occupied by this Society in Pall Mall. During the present week their eighty-fourth exhibition has been opened, and bears out fully the reputation which the Society has acquired, and is so studious to keep up.

As usual, the chief strength of the exhibition lies in landscape; figure-subjects being comparatively few in number, though including some of rare merit. Mr. Alma Tadema's principal work, "The Tragedy of an Honest Wife" (24), is disappointing and eccentric. The subject is the tragical story of the murder of a new wife of some antique polygamist (the whole story is engraved in old-fashioned French on the frame) by one of her predecessors, told in three scenes: on the left, the wicked wife, wrapped in a blanket, watching from the window the honours paid to the new comer; in the middle, the latter laid out dead; on the right, the miracle which happened when the lamp burning at her tomb was upset: a clumsy miracle, which could do no good to any one. The technical execution of the details, the texture and the cold gleam of the marble in the tomb scene, for instance, is perfect; but the figures have no interest. The artist's smaller work, "Fishing" (266), slight as the subject is, shows him to more advantage. The centre of one wall is occupied by Sir John Gilbert's large drawing of King Francis I. and other great personages "In the Studio of Benvenuto Cellini" (116) examining his last productions: a composition rich and powerful in colour, as a whole, but of which the separate figures seem very devoid of character. A brilliant and powerful sketch by this artist, on the first screen, showing a cavalcade defiling through a wooded landscape, should be looked at; the contrast between the dark wood and the glister of the steel armour is admirably given. The three new associates who are represented in the exhibition all belong more or less to the class of figure-painters. Of these, Mr. Brewtnall is the most original, though there seems an uncertainty of aim in his works at present. "Treasure Trove" (39) shows an English sea-beach, where two handsome young people, in a costume of uncertain date, look at the contents of a casket thrown up by the sea, and turned out by a naked urchin of uncertain nationality. The female figure bending forward to examine a string of pearls is very graceful, and is certainly the point of the scene. In the illustration of Hans Andersen's "Little Mermaid" (78), on the contrary, the interest is in the landscape, which is beautiful in its cold grey half-light; the mermaid is in the way; mermaids may do in fable, but do not do to paint. Mr. Radnor, another new member, ought to do a good deal, for he has much feeling, and admirable command of his materials, showing high finish of figures and interiors in pure water-colour; at present, in fact, the finish is a little too high, and the surface texture almost too carefully polished up everywhere. In "Blague," for instance (211), a flirtation dialogue between a French soldier and a short-skirted, bare-armed country lass, the uniform of the soldier has a bright, brand-new look, which startles the eye rather, and produces a harshness of effect which the artist will probably see the propriety of toning down in future efforts. The figure of the girl is very pretty. In his other work, "Weary" (236), there is a higher tone of feeling, and a lower scale of colour; and here the attention given to detail and to local colour, and the conscientious finish of every portion, in no way interfere with the prevailing sentiment. We shall look with interest to Mr. Radnor's future work. The third new member (and we ought to apologise for our slip in mentioning a lady last) is Mrs. Allingham, whose admirable drawings on wood are well known to readers of the *Cornhill*, and whose present name is honourably known in connexion with literature also. Her single work, "Small Customers" (261), represents two little pets of girls perched on high stools at the counter of the village confectioner; very pretty it is, though perhaps the manner of execution does not belong quite to the real spirit of water-colour. Of other well-known contributors in this class of subject, Mr. Pinwell has gone out of his usual beat to send a large half-length figure, called "Sweet Melancholy" (8), which we must really be excused for finding melancholy without the qualifying expression; the personage suggests an allegorical cook, with her hair down. "The Old Clock" (221) is in the old manner, and much more to our mind. Of Mr. F. W. Topham's drawings, "Wayfarers" is the best (17), the sitting figure particularly. The contributions of Carl Haag possess the artist's usual characteristics in their usual excellence. Mr. J. D. Watson sends some of those admirable and broadly-handled works, in which he throws the halo of art round the commonest farmyard or cottage incidents; "Neddy" perhaps is the best (242); and in quite another manner the little group "in the wood" (fourth screen) is very pretty. Mr. Walter Duncan's largest work, "Hoodman Blind" (31) is rather interesting as a study of old-English costume than of figures; but there is pathos in his "Agnes" (273), and in the female figure, too, in the sketch called "A Parting" (247). A very large drawing, by Mr. Macbeth, called "A Winter's Walk," is a work of which we can only say that we trust it will not happen again. We ought, perhaps, to include under figure-subjects Mr. Marks's "Darby and Joan," and "Edwin and Angelina" (5, 49), though these are feathered bipeds, forming a contrast after the manner of Landseer's "High Life" and "Low Life," admirable in humour and execution.

Mr. Francis Powell, whose sea-pieces have attained such a high reputation in the last few exhibitions of the Society, comes to land this year with a large and grandly-composed drawing of "Loch Coruisk," or rather the mountains adjoining it. The rather red and heated tone, to which there was a little too much tendency in the artist's sea-pieces, re-appears here, and gives, together with the somewhat mechanical treatment of the foreground-water, a slightly artificial effect; but the power of the work is unquestionable, especially in the lighted side of the crag on the left, and the green folds of hill under it. His small drawing, "A Glimpse of the Sea" (265), is a curiously frank instance of the use of body-colour in a sketch of this kind; it might easily be taken for a small oil-painting. Of the larger landscapes, one of the most prominent is Mr. E. A. Goodall's "Remains of the Causeway from the Nile to the Libyan Hills" (6), the vestiges of a work described by Herodotus as more wonderful than the Pyramids. From the flat foreground, with its irregular pools, we look along the perspective of mounds representing the piers of the causeway, and retaining here and there just enough of squareness and regularity of form to show that they are not of natural origin. The distance is closed by the line of hills in the warm western glow. The subject imparts an interest of association to the drawing, which is not a work of genius, but is so carefully handled, and so good in style, clearly defined in every part, but without the least harshness, that it almost produces the effect of genius. Mr. Clarence Whaite's principal work, "Snow in Harvest" (181), represents a foreground golden with corn-sheaves, sloping down to a deep valley, from the other side of which rise great hills, covered, or nearly so, with their first snow. The cornfield-foreground, and the peculiar tone given to it, appeared last year, and the artist must guard against repeating the effect till it has the appearance of a receipt. But the present work is a very fine one, very free and broad in manipulation, and completely original in style. A snow scene of another type is exhibited by Mr. Newton, to whom the grandeur of snow-covered hills has been familiar for years, and who shows his powers undiminished in his representation of "Our British Alps" (46), in which, however, the picture is made entirely by the distant hills, the foreground being somewhat tame, and a little too manifestly toned so as to emphasise the cold snow-surfaces and blue shadows of the mountains. Mr. Collingwood Smith's "Sunrise on the Adriatic" claims notice from its size and finish, but is marred by a foolish attempt to work in figures from the "Aurora" of Guido Reni into the morning clouds,—an utterly false step.

Names there are well known in this gallery, which are always signed to work good of its kind, but so far uniform in aim and excellence as to render comment superfluous. We may content ourselves with noticing that Mr. Branwhite's works exhibit his usual characteristics; that Mr. Richardson, in his "Glen Nevis" (2), shows more power than usual in the stormy middle distance; that Mr. Callow's architectural subjects are, if anything, better than ever in their own way; that Mr. Alfred Fripp, in addition to one of his peasant groups, of which we tire a little, exhibits a very pleasant work out of his usual line, "The Mill Pool" (113), at the en-

trance of a quiet village, and warm with reflections of the evening sky; that Mr. Naftel is as good as usual in numerous small works, and Mr. W. M. Hale not as good as usual, but rather commonplace, to our regret. Other names will not admit of being catalogued so. Mr. Alfred Hunt's "When Summer Days are Fine" (57), is one of those audacious productions which fly in the face of all ordinary rules and regulations. It has no depth, no shadow effect, no composition, no subordination of tones. It is a plantation of trees, in the full yet still fresh foliage of early summer, overhanging the pebble bed of a stream shrunk almost to nothing; every tree, with its peculiar tints, burnt into prominence and contrast beneath the glare of a mid-day sun. The light, direct and reflected, is so strong that the shadows of the foliage, though cool, are not dark; there is no dark in the scene. The outlines of the hills behind seem to quiver in the intense sunshine. This is not the kind of light or scene out of which, as a rule, the best pictures are made; but Mr. Hunt thinks Nature has a right to her "flaring beams," and he has a right to paint them,—a prescriptive right, seeing that he can do it as no one else can. "Going Nutting" (131), is a piece of hot work of the same kind, and of nearly the same excellence; it will be more liked than the other, as there is more of a composition in it; but the difficulties overcome are not so great. "A Rent in Wetherlam" reminds us that the artist can do the black and thundery business just as well as the other, when he has a mind. Why the two sunshine pictures were put near the floor, instead of on the line, is a mystery. Among artists who give their own colouring to every subject, we count, too, Mr. Albert Goodwin, who gives annual proof in this gallery of the originality of his genius, by drawings which infallibly arrest attention by their strongly-marked character, which is combined with a total absence of mannerism. So much is this the case, that a majority at least of his eight drawings this year might very well be ascribed each to a different author. "By the Well" (3) is a more matter-of-fact subject than usual with the artist, very completely though simply treated; the best of his contributions are, perhaps, "Dartmoor," and "Winchester from St. Giles Hill" (40, 33),—the latter a small drawing, recalling the feeling of Turner in some of his views; "Eastward of Eden" (62) is a very fine gloomy landscape. Then we must pay due honour to Mr. Boyce, who shows us the poetry and the colour that there is in old buildings of the simplest class; the old church and farm at "West Dunster, Somerset" (98), the whole of the buildings in shadow, and just a strip of sunlight over the foreground, is marvellous as a piece of realistic painting, not excluding sentiment; so is "Old Buildings at Kingswear" (126); and his two bits of coast scenery should be looked at, too (126, 279: the former especially for the light and aërial effect of the distant sea and sky). A drawing out of the beaten track is that by Mr. J. W. North, "January in Algiers" (32), a mass of rich, warm-tinted foliage, nearly shutting out the sky from the girls who recline lazily near a well in the centre; he repeats too much of the same tone, however, in the English scene, "The Vicarage Croft" (143), which strikes us as unreal in effect. Mr. Thomas Danby's "Lake of Bala" reflects in its prismatic waters the very purple shadows of the hills above in an unusual and possibly natural manner; the effect seems to us forced, however, and the water certainly wants transparency. But space warns us that we must have done discriminating, merely mentioning in addition a fine freely-treated landscape by Mr. Whittaker, broadly washed in with much force of colour and little detail; Miss Clara Montalba's "On the Way to the Campo Santo" (188), marked by the same qualities as her works in the Winter Exhibition noticed by us; Mr. Birket Foster's "Fish Stall at Venice" (109), and "A Shrine" (120), the interest of which is, however, not in proportion to the high finish of the execution; Mr. Palmer's "Travellers" (272), a rich-toned evening scene of the old "Classic landscape" school; and the minute delicate little work of Mr. F. Walker, "The Old Gate" (244), a repetition in little of an Academy picture of two or three years ago, and which we like better in this edition than in the original.

Greece.—The King has ratified the archæological convention concluded between Greece and Germany for the prosecution of excavations in the Olympiad.

THE ART UNION OF LONDON MEETING.

On Tuesday morning last, the subscribers and their friends met in the Royal Adelphi Theatre, to distribute the amount subscribed for the purchase of works of art. The Lord Houghton presided, and there were present also Messrs. Pocock and Antrobus, hon. secretaries; Sir Walter Stirling, Professor Donaldson, Messrs. Chas. Hill, Jas. Hopgood, Hayward, Bennoch, Butterworth, Wm. Smith, Z. Troughton, G. Godwin, V.P., and others.

Mr. Antrobus read the following

REPORT.

The confident anticipation expressed by some of the speakers on this stage twelve months ago that a successful result would attend the issue of the grand engraving of "Wellington and Blucher" has been amply verified, and the Council are glad to announce the large sum of 18,926*l.* 5*s.* as the total of the year's income. This is a great increase on the amount of last year, and even considerably exceeds that of 1847, up to this time the highest amount ever collected. It must, however, be borne in mind that the heavy cost of this year's work, 7,872*l.*, as against 2,310*l.* expended on the same account last year, precludes an equivalent increase in the sum available for prizes.

The popularity attained by this plate is a further proof that large and fine works are always duly appreciated, as stated in the Council's report of 1872.

There is no doubt that the result thus obtained is due in a very great degree to the energetic action of the local secretaries and agents in all parts. They felt that they had a grand and interesting work to offer to the public, in the truly national print which had been produced at so great a cost; they were, so to speak, put on their metal to show what could be done, and the result is, without question, most remarkable.

Very few subscribers have taken any other print than that of the year, and to find 18,000 people putting down their names for the same work, undeterred by the cry one sometimes hears, "Oh! you see that everywhere," is sufficient proof of the intrinsic excellence of the work itself. The only complaint that has been heard is that it is "too much for the money." That such a work can be had for a guinea is a proof of what co-operation can effect.

On the present occasion so great have been the exertions of the Society's representatives, in all parts of the world, that the Council feel it would be invidious to select any for special mention.

In the last report the Council adverted to the fact that, in consequence of some error in the preparation or use of the water-glass solution, with which the original painting was impregnated, a kind of efflorescence or mist had begun to appear on the surface, threatening serious damage. A method has happily been devised for removing this, and it appears that the colour beneath is quite uninjured, so it may be hoped that, when the excess of the silicate has from time to time come to the surface, and been removed, the painting will remain perfect and imperishable.

In the report of last year the Council announced, that, with a view of helping forward any movement tending to the art-education of the people, they had offered two premiums of 35*l.* and 15*l.*, respectively, for designs for painting on pottery. In reply to this offer, twenty-two designs were sent in, and, by the kind permission of the Science and Art Committee of the Privy Council, they were exhibited for some time in the South Kensington Museum. The premiums were awarded to two drawings of much merit, the authors of which, on opening their letters, were found to be Mr. R. Abraham, of the South Kensington Art-training School, and Mr. J. Eyre, of No. 10, Adrian-square, Tregunter-road. The Council have only at present decided on reproducing one of the designs on china, and an arrangement has been made with Messrs. Copeland to make one copy as a specimen.

Since the last meeting the Council have had to lament the death of Mr. Benjamin Bond Cabbell, one of the original founders of the Institution, for many years a frequent attendant at the Council, and to the day of his death a liberal supporter.

During the same period several vacancies have been caused by death in the ranks of art, notably Owen Jones, the most potent apostle of the application of colour in architectural enrichment, Baron de Triquetti, largely employed in the decoration of Prince Albert's Mausoleum, and Fortuny, the founder of a masterly, if somewhat eccentric, style of art.

Last autumn, Mr. John Henry Foley, R.A., died at the comparatively early age of fifty-six. He was in the very first rank of British sculptors. Born in Dublin in the year 1818, his attention was directed to art, at an early age, by his grandfather, and when only fourteen years old he entered the drawing and modelling classes of the Royal Dublin Society. Amongst his first works, "The Death of Abel," and "Innocence," gained much notice; but the "Ino and Bacchus," produced in 1840, was the work on which his reputation was founded; after the production of this his success was certain. Commissions, however, at first, were few, and Mr. Foley's was a notable instance of the assistance which this Institution has been able to render in fostering genius. When it was proposed to produce, for the Art-Union, copies of the "Youth at a Stream" in bronze, and "Innocence" in porcelain, Mr. Foley expressed more than ordinary gratification, and gave the greatest attention to the production and perfecting of the works. At a more recent period, when his fame was established, he bestowed equal pains on the reduction, for this Society, of his noble figure of "Caractacus," which, produced in bronze by Messrs. Elkington, as well as by Mr. Hatfield, is acknowledged to be one of the finest works of its kind. Mr. Foley's remains found a fitting resting-place in St. Paul's Cathedral.

Another death which has occurred since the last meeting will lead to an effect on the practice of art in this country greater than would, at first, appear. By the death of Lady Chantrey, for many years a zealous supporter of this Society, the bequest of Sir Francis Chantrey, amounting to about 3,000*l.* a year, is placed at the disposal of the Royal Academy, "for the purchase of works of the highest class in sculpture or painting executed in Great Britain." The works so purchased are to be exhibited publicly, and to form a permanent national collection, and Sir Francis expresses his confidence that the Government of the country will provide fit accommodation for it, the Academy being expressly forbidden to divert any part of the funds towards building a gallery.

The completion of the National Gallery would seem ot be somewhat more hopeful than has for a long time appeared, seeing that the estimates before the House of Commons, for the past year, included the sum necessary for finishing the buildings, which have been added at the back of the present pile. Mr. Beresford Hope has pressed on the attention of the House the need for a National Gallery worthy of the name. As long ago as 1868, the architect, Mr. E. M. Barry, was directed to prepare his plans and estimates, and it would appear to be quite time for the public to inquire, how many more years are to elapse before they are possessed of a National Gallery, worthy to rank with those of Paris, Munich, Dresden, and Berlin. Surely this country is not so poor nor so dead to an appreciation of the priceless value of our national pictures, constantly increasing in number, as to grudge the necessary amount for providing a casket worthy to contain such a treasure. In this national building then, so enlarged, no doubt a suitable resting-place would be provided for the treasures of art to be acquired through the deceased sculptor's munificence; and considering the branch of art which he followed, and the small amount of encouragement for sculpture at present existing in this country, the Academy would probably see fit to turn a considerable portion of the fund into that channel. At any rate, we may be perfectly confident that the money will be impartially and judiciously expended, and the result of directing so large a sum regularly, year by year, to the same end, will be to bring together such a collection of works, that the mind does not, at the moment, appreciate the magnitude of the ultimate result.

In the original prospectus, drawn up by the founders of this Institution thirty-eight years ago, it was inferred that the German societies, called Kunst-Vereine, were the initiators of the Art-Union system. It appears, however, from a very interesting MS. in the possession of a member of your Council, that as long ago as the time of Van Dyck, who died in 1641, there existed in London an association of painters called St. Luke's Club, which adopted the plan of making a subscription for the purchase of one or more works of art to be afterwards drawn for amongst the members. Van Dyck appointed one evening in the week for the virtuosi of London to meet at his house, "he entertaining them in a generous manner" on the festival of St. Luke. After the death of Van Dyck, and the cessation of the civil war, Sir Peter Lely, then rising into fame and fortune, revived the Society, at his own house, and this continued for many years, till death again stopped their meetings. In 1689 several of the virtuosi, recognising the inconvenience of meeting at a private house, held their assemblies at a tavern, and the Bumper, the Three Tuns in Chandos-street, the Swan, the Fountain, and Spring-gardens, were in turn the scene of these festivities. "One person of the Society was chosen steward for the year, and, on St. Luke's day provided a dinner, every person paying a crown towards it, and the Surplus to be payd by the Steward; and if the Expenses amounted to more, leaving the Entertainment to the Generosity of the Steward. At first it was customery for the Steward to give a Westphaly Ham and Chickens, but after times and generous minds added more oftentimes at the greatest Tavern in London in a splendid manner." Amongst the names of stewards commemorated in the document are Clostermans the painter—Grinling Gibbons—Michael Dahl—Sir Robert Child, banker—Sir Christopher Wren—Hugh Howard—George Vertue—C. F. Zincke—Gibbs, architect—M. Ruysbrach—W. Kent, and others. A resolution of the club, passed at the Rose tavern, March 5, 1693, was to the effect, that, such members as pleased to do so should deposit five pounds each with one of their number, "to lye at the bank ready for the Purchase of such picture or pictures as might be found worth the aggregate sum." The rule was that these works were to be distributed by lot, "the winner, in spending four guineas more in a feast upon the rest of the company, shall be fully and justly entitled to the same as if the said purchase had been made entirely with his own money." The drawing took place on the eve of St. Luke, *i.e.*, October 17, each year.

Here was clearly shadowed forth the principle of an art-union, devised and carried out by the very highest artists of that time, differing, however, from our institution in the circumstance that each member did *not* receive, in the first place, an annual work of art of at least the full commercial value of his subscription. Perhaps we may fancy that in the older association the *feast* held the place of the *works of art* now provided. A minute circumstance confirms the genuineness of this document. It is noted that Mr. Wooten acted as steward in the year 1717, coming, out of his turn, before Sir James Thornhill, and he had a card-plate engraved "to invite on St. Luke's feast," at his own house "in Covent Garden."

At the recent sale of the collection of Mr. Howard, who was himself one of the stewards, there was purchased for the British Museum, an engraved emblematic card, having a scroll left blank in the plate, but filled up in writing in the individual copy with an invitation to Mr. Howard, to attend the feast of St. Luke's Club, at Sir James Thornhill's house, on the *fete* of the Society for 1718, the year following that in which Mr. Wooten entertained the members out of his turn. This was, no doubt, printed from the above-mentioned plate, and the circumstance explains the meaning of the invitation to the long-forgotten festival of these art-lovers of a bygone generation.

The accounts of the year have been audited by three members of the finance committee and by Mr. Fearis and Mr. Wright, to whom thanks will be presently proposed.

The following is a brief summary of the receipts and expenditure. A detailed account will, as usual, be printed in the report.

Amount of subscriptions		£18,926 5 0
Allotted for prizes	£7,073 0 0	
For print of the year, almanack, exhibition, report, &c., and reserve...	8,675 17 2	
		16,678 17 2
Agents' commission and charges, advertisements, postage, &c.		2 347 7 10
		£18,026 8 0

The amount to be expended on prizes will be thus allotted:—

23 works at		£10 each.
30	,,	15 ,,
20	,,	20 ,,
19	,,	25 ,,
20	,,	30 ,,
16	,,	35 ,,

10 works at	£40	each.
10 ,,	45	,,
8 ,,	50	,,
6 ,,	60	,,
6 ,,	75	,,
4 ,,	100	,,
2 ,,	150	,,
1 work at	200	,,
1 ,,	250	,,

To these will be added:—

10 Bronze Statuettes "Cimabûe."
2 Bronze "Nelson" Columns.
3 Bronze Townley Vases.
40 Porcelain Statuettes, "Net-mending."
15 Chromos of "Bellagio."
90 Statuettes, "Whittington."
300 Folios of Autotypes from the Society's Prints.
100 Volumes of Landscapes after E. W. Cooke, R.A.
30 Silver Medals of D. Roberts, R.A.

These, with the prizes given to unsuccessful members of ten years' standing, will raise the total number of prizes to 1,020.

The reserved fund now amounts to 17,935*l.*

For the coming year, the Council have ready a plate finely engraved in pure line by Mr. Sharpe, from the painting in the Royal Gallery,—companion to the subject of the present year's print,—viz., "The Death of Nelson," by the same great master. To the English, always interested in anything relating to the sea and ships, and from the most affectionate feeling still clinging to Nelson's name, the subject is likely to prove perhaps even more attractive than the former plate, whichit exactly matches in size. There is, without doubt, more action and greater variety of incident in the scene depicted. The central point of the picture, as a composition, is also the chief point of interest in the story told. Nelson, just wounded on the right side of the chest, lies supported in the arms of Captain Hardy, while Dr. Beattie, the surgeon, carefully seeks the position of the ball. Between the surgeon's face and Nelson's appears the handsome countenance of Lieutenant Ram, who was close by at the time. In front of Nelson is his favourite boatswain, holding one of the enemy's flags, as if in reply to his question, "How many flags have been taken, Hardy?" Without some explanation it is not easy to understand the exact position of the ships engaged. Nelson had driven his ship right between two of the enemy, and over the bulwarks of the *Victory* is seen the broadside of the *Redoubtable*. To the left of the spectator is the bow of Nelson's ship, and about half-way between the central group and the prow of the vessel, extends a sort of breastwork constructed of the hammocks of the men ranged behind nettings. Here are three sailors hauling at one of the mainsail halyards, with a view to disengage an upper yard of the *Redoubtable*, which has fallen and become entangled in the rigging of the *Victory*; several sailors are mounting the shrouds for the same purpose. Only a few of the men engaged are aware that Nelson is struck down, and so strong is the force of discipline, that, though some are whispering to each other of the fact behind their hands, yet the routine of duty is not delayed for a moment. A conspicuous object towards the right of the spectator, is the captain of a gun, just pulling the lanyard of the flint-lock, then in use. Close by, drawn in from the port side of the ship, on which the spectator is supposed to stand, is a gun being sponged out by the crew, the captain holding his thumb on the vent the while. In front, a rosy-faced powder-monkey, heedless of the carnage around him, trips along with a cartridge in his arms. The extreme care in the matter of detail, which we noted as being displayed by Maclise in his Wellington and Blucher picture, was also remarkable in his studies for this subject. The old carronades of Nelson's time were of course quite out of use when this picture was composed, but, after much search, one was found in the dockyard, and it was fitted up with the proper breech-tackle, carriage, flint-lock, and everything as nearly as possible the same as those on board the *Victory*. The flint-locks were very liable to get out of order, or become damaged by shot in action, and to guard against the evil results of such accidents, the captain of the gun had a horn of priming-powder slung round his neck, and a fuse ready for use, and further there was a bucket in which the fuse might be deposited after use, since much precaution was needed, where powder, cartridges, and open magazines were all around them. On the top of the poop is the young midshipman who shot the man in the misentop of the *Redoubtable*, who struck down Nelson. It is said that the English marksmen kept so strict a watch on this point, that not one of the men who occupied the post came down alive. The great variety of expression, of action, of incident, is most striking in this picture. No two groups are alike, and there is not the smallest symptom of staginess or attitudinising, though ordinary designers might well have fallen into these faults. There is nothing obtrusive in the composition, but the perfection of generalisation is combined with the utmost elaboration of detail. The plate has employed Mr. Sharpe for five years to engrave it, and there is no room to doubt that its success will be at least equal to that of the companion print.

We would now address a few words to those who have the good fortune to draw prizes to-day. A most remarkable fact, at the present moment, in reference to works of art, is the unprecedented amount bid for water-colour drawings at some recent sales. Whether the prices which have been obtained, are altogether indicative of a healthy state of public judgment, or whether they are due to an artificial inflation, which may, at any time, collapse, is a matter on which much might be said; but, at any rate, there is no doubt that at the present time there is no more satisfactory investment than paintings, whether in oil or water-colour; but an indispensable condition is that the money be judiciously laid out.

At a recent sale at Christie's a drawing of Loch Awe, by Copley Fielding, which was selected by a prizeholder of 80*l.*, in the year 1850, was sold for 892*l.* 10*s.* Of the other works by the same master,—by David Cox, Dewint, and others, it is an astonishing fact that, as a general rule, they brought from five to ten times the amount which the artists themselves originally received for them.

The practical conclusion is that fine works in water-colour deserve more attention than they have generally received from prizeholders in this Society; and the Council would urge those who gain the privilege of choosing works for themselves, to look at pictures in water-colour, as well as in oil, before deciding.

It is, of course, most desirable that works gained as prizes should be kept by the owners, as objects of continual delight and instruction; but, as it must sometimes happen, that, through death or other causes, such works have to be sold, it is evidently desirable that they should be selected so as to represent as nearly as possible the amount paid for them.

Lord Houghton, in moving the adoption of the report, expressed his regret at his unavoidable absence last year, and touched on one two of the topics discussed in the report. He referred to the death of Mr. Foley, the honour of whose acquaintance he had. He was a gentleman of the most genial disposition, and no one was more regretted by the members of his own profession. In this country sculpture was, on the whole, so unremunerative and accidental a profession that the loss of so great an artist as Mr. Foley,—a man with so much heart and so much generosity,—deserved to be profoundly regretted. The prizes to be given away that day were so very numerous that many present would go home with the satisfaction of having received a prize; but even those who had not been fortunate enough to obtain a prize would have their sorrow mitigated by the beautiful print which would be given away. In reference to the large amounts now paid for works by deceased as well as living artists, in comparison with the sums received for them originally, he remarked that it was one of the necessities of the day that people engaged in business should make enormous fortunes, and that he did not think any more worthy or commendable mode of spending their money could be devised than the purchase of fine works of art; and that this should not be any discouragement to artists of the present day, as they might be assured that if they could arrive at the point of producing magnificent works they would be magnificently rewarded.

Mr. Godwin, in seconding the adoption of the report, remarked on the great interest of some of the points noted. In reference to the great success of the print of Wellington and Blucher, he pointed out how much care and judgment on the part of the council was required in undertaking so large a work; that years had been passed in producing the plate, and years more in printing. Without the aid brought by science to art in producing several *fac simile* copies of the plate it would have been impossible to print the number of impressions required. In reference to this matter also he stated what was probably known to few of those present who perhaps supposed the impressions were struck off by thousands in an hour, like a newspaper, whereas in fact every single impression required an average of fifty minutes for its production. As to this plate and its companion, the "Death of Nelson," he thought their appearance most opportune, for, at a time when all the nations of Europe were unhappily getting up enormous armaments,—these prints going into every quarter of the globe where English men and English women were to be found, would recal heroic times in our country, and would lead to an assurance that, seeing what Englishmen had done in bygone times, Englishmen would still be ready to do when the need should arise. In reference to the munificent bequest of Sir Francis Chantrey, by which the large sum of 3,000*l.* a year would be available for the purchase of works of English artists, he expressed a hope that no obstacle would be found, in the terms of the bequest, to the employment of the fund in giving commissions to artists as well as in buying finished works, so that our public places of resort,—guildhalls, courts of justice, market-places—might be adorned with works of art to interest, instruct, and elevate the great masses of the people.

A vote of thanks to the Hon. Secretaries, and Mr. T. S. Watson, was proposed by Professor Donaldson, and seconded by Mr. William Smith; one to the ladies who were to draw the prizes, by Mr. Bennoch, who gave some curious and interesting statistics, showing the marvellous number of persons all over the world to whom the productions of this society had been distributed, as objects of delight and instruction, and the drawing for prizes then followed.

The following is a list of the principal prizeholders:—

250*l.*—Howe, W., 107, Fleet-street.
200*l.*—Pooley, C. J., Ancoats.
150*l.*—Cushen, H., Mile End-road; Dobell, J., Cheltenham.
100*l.*—Broadwater, R., 3, Billiter-square; Chorlton, E. A., Warrington; Walters, H., Stock-cross-road; Sidebottom, Miss, Hollingworth.
75*l.*—Alexandra, Mrs. W., Barcelona; Arnold, J., Tufnell Park; Brumell, Dr., Morpeth; Budden, J. L., Fenchurch-street; Frank, W.W., Railway Clearing-house; Goode, J. J., Clerkenwell-green.
60*l.*—Blair, J., Dundee; Bryant, T., Upper Brook-street; Coupland, E., Plumstead; King, Jas., Cloudesley-square; Wardle, H., Burton-on-Trent; Wilson, Jas., Glasgow.
50*l.*—Basstion, C., Invercargill; Beckett, T. W., Willow-walk; Bromwich, J., Birmingham; Harvey, J., Bishops Stortford; Lee, J., Lorrimore-square; Moll, F., St. James-street; Schroder, J. M., Manchester; Sampson, Sam., Crown-hill.
45*l.*—Arlidge, Dr., Newcastle-under-Lyme; Constable, A. H., Ballarat; Furnnell, P. W., Loughborough-park-road; Hart, J., Deloraine; M'Cool, George, D. ?; Pentland, C. A., Quebec; Perry, W. R., Walbrook; Saunders, J. H., Hay, New South Wales; Wilson, W. F. A., Maida-hill; Wood, J. C., Abbey-road.
40*l.*—Bond, A. H., Frederick-street; Bracher, G., Alton; Carr, C., Hulme; Crump, E. H., Railway Clearing House; Fletcher, E. W., Islington; Fragley, J., Bank of England; Fleeman, J., Kippax; Kay, James, Stourbridge; Parker, J. J., Orange, New South Wales; Troughton, R. Z. S., Douro-place.
35*l.*—Anderson, J., Margaret-street, W.; Boam, J. H., Litchinch; Budds, George, Sandhurst; Caswell, C., Horncastle; Edmunds, Admiral, Albany; Grissell, H., Montague-square; Harrison, James, St. Martin's-lane; Jameson, J. A., Hull; McDougall, J., Greenock; Philpott, Rev. R. S., Mendip; Ritchie, W., Dundee; Sharpe, C. S., Lombard-street; Sherrard, G., 35, East-street; Smith, W., Upper Mitchem; Taylor, G., jun., 78, Bishopgate Without; Watson, W., Brierley.
30*l.*—Cattans, R., 33, Mark-lane; Cuff, H. D., Leman-street; Day, G. K., Monkroyd; Emery, J., Walsall; Farmer, D., Peckham; Freake, C., South Kensington; Gentles, T. L., Derby; Haynes, G., Bower-terrace, Maidstone; Hawkins, H., Preston; Jackson, Mrs. N., East Acton; Kerkham, J., Lynn; Larmack, J. D., Victoria; Leiper, R., Sunderland; Yerstoun, Mrs. G., Cheltenham; Smith, C. J., Newport, Monmouth; Valentine, T., Maryborough; Watson, R., New North-road; Wilson, Sir James, Hobart-town; Wolfgang, E. G., Lee; Zenner, J., Arkansas.
25*l.*—Allingham, J., Gravesend; Blunt, Mrs. A., Balaarat; Clericscean, P., Port Louis; Coke, R. G., Chesterfield; Daniel, J. H., South Molton-street; Evans, G. F., Hobart Town; Fielder, H., Christchurch, New Zealand; Hamilton, Sir Jas., Belfast; Jacobson, J., Frederichstadt; Leigh, J., Birmingham; Lock, J. W. Booksellers'-row; Morris, J., Blackheath; Ogle, M. F., Maryborough; Peacock, L., Port Elizabeth; Sloan, Miss A., N. Lofen; Tetley, W., Thirak; Webb, F., Caledonian-road; Roberts, Albert T., Barcelona.
20*l.*—Ansell, H., Upper Norwood; Berkeley, Miss, Worcester; Briggs, I., Sandal; Carpenter, Rev. J., Bournemouth; Court, J. F., Birmingham; Crosley, Lady, Somer Leyton; Da Souza, J., Oporto; Davies, Jn. W., East Greenwich; Dean, T., Batley; Garpett, H., Crefeld; Jacob, T., Haverstock-hill; Lewis, J. D., Aberavon; Maddox, J., Hampstead-road; Matthews, T. R., Cambridge; McGillivray, F., Lanark; Parker, Rev. J. D., Bedale; Robinson, D., Uxbridge; Stevenson, J., Cheltenham; Shand, A., Liverpool; Sykes, Reg., Brooklyn.
15*l.*—Allcock, Mrs., Stockwell Park-road; Baird, W., Thornhill-square; Barchard, T., Brighton; Brooke, W., Broomsgrove; Bull, W. B., Newport Pagnell; Chifferell, F., Cursitor-street; Chubb, G. J., St. John; Clendon, C. H., St. John's-wood; Cornwall, Dr., Sydenham-hill; Davey, J. F., Diamond Lake; Everall, H., Shangai; Freeman, H. E., Woodstock-road; Geere, M., Sittingbourne; Harry, T. F., Mossel Bay; Kedgely, H. W., Borough Market; Lock, J. W., Booksellers'-row; Lluss, José, Barcelona; Martin, Bros., Warminster; Martin, E. P., Blenavon; Martin, W., Acklington; Nuttall, R., Westbourne Park-terrace; Orchard, Miss, 44, Bolton-road; Perry, Parker, W. Fording Bridge; Perry, F., Ropemaker-street; Raby, J., Kirkham; Randall, F. J., Bridgend; Rohrs, J., Tokenhouse-yard; Shaw, J., Bury; Teale, G., Preston; Wallace, H., Gateshead.
10*l.*—Ambrose, J., Framore; Arbos, F., Barcelona; Ashby, G., East Deane; Back, T. E., Dover; Coleridge, Rev. E., Mapledurham; Duddfeld, T. B., Shanghai; Eager, G. J., Sydney; Easty, C. W., Glengall-grove; Edmonds, T. W., Hunter-street; Fitzharding, C. B., Dubbo, New South Wales; Forest, A. R., St. Paul's-road; Gerlings, T., Utrecht; Hall, —, St. Helen's; Hill, James, Bundaleer, South Australia; Mellish, G. L., Christchurch, New Zealand; Moore, R. S., Plymouth; Morris, W. T., Geelong; Roberts, R. N., Durban; Shand, A., Liverpool; Smith, Clement, Taunton; Stock, Mary Ann, Geelong; Taylor, J., Exeter; Trotman, F. H., Brixton; Ure, N., Montreal; Vivash, W., Adelaide; Watkin, Dr., Gilsgate; Woods, G., Southport; Wright, W., Minshulchurch.

A Bronze Statuette "Cimabûe."—Carr, H., Plaistow: Cockcroft, R., Bradford; Foster, R., Sunderland; Jimines, R., Port St. Mary; Mellor, J., Huddersfield; Meller, T., Change-alley; Paterson, J., Coleman-road; Turner, W. J., Finsbury Park; Waldy, Rev. J., Cheltenham; Wilson, H. C., Prestwich.

A Copy in Bronze of the Nelson Column.—Ducasse, L., Angouleme; Wetenhall, H. P., Warnford-crescent.

A Copy in Bronze of the Townley Vase.—Hunt, J. P., Cradley; Paterson, Miss, Melbourne; Shiver, F., Cheltenham.

A Statuette, "Net-Mending."—Allen, Wm. H., Thame; Avery, J. Redditch; Barrett, H., Haverstock-hill; Booty, E., Creswick; Buffet, Mrs., Lee; Colby, Dr., Malton; Corbett, Miss, Camden-road; Cox, T. H., Melburn, U.S.A.; Dakeyre, D., Leek; Daneley, D. C., Conduit-street; Davis, W. G., 191, Strand; Davis, Mrs. A., King's-road; Elsam, T., Great Northern Railway; Fletcher, G., Christchurch, New Zealand; Hamerford, B., Bristol; Harris, J., Southgate; Hawker, W. C., Islington; Heath, F., Mildmay Park; Holmes, J. G., Chester; Hooper, Rev. H. P., Brighton; Hoskins, F., Bordsley; Johns, E., Ponteprid; McCree, H. C., Halifax; Mitchell, J. Port Adelaide; Murray, W. J., Montreal; Newvine, G., Newcastle-on-Tyne; Pogson, Sam., Sleaford; Roberts, Captain, Durham; Salter, E., Auguste; Scott, Colonel, Plymouth; Shave, W., Serle-street; Slade, Mrs., Shorncliffe; Smithers, J., Royal Exchange-buildings; Taylor, A., Hartford, U.S.; Tommas, R., Birmingham; Welldon, T. S., Monte Video; Weston, W. J., Westbourne-terrace; Weitehall, Colonel, Brighton; Wilmot, A., Port Elizabeth; Young, W., Brixton.

A Roberts Medallion in Silver.—Abbott, F., San Francisco; Allen, J., Ashby; Baxter, F. J., Green-street; Brit, W., Dover; Bickford, J., Ashburton; Brown, J. G., Rochampton; Clark, Mrs., Emsworth; Dangar, H., New South Wales; Mrs. De Keyzer, Blackfriars; Dunn, A., Dunedin; Forth, W. J., Hobart-town; Game, W., Melbourne; Gray, Wm., Springville, Cork; Grenwood, J., Preston; Gurney, G., Dulwich; Hartnall, Mrs., St. James's-street; Haslop, J. A., Islington; Keary, C., Sydney; Kenning, C. H., West India Docks; Lewis, W. P., Newport; McKenzie, W. E., Clapton; Nash, W. C., Lewisham-road; Penberthy, F., Hilston; Phipps, P. W. C., Collingtree; Saxton, C., Gloucester-road; Sharp, W., Birmingham; Williams, B. F., Routh; Winston, T., Rhyl; Wood, J., Loughborough; Wood, H., Oldenburg.

AN ADDRESS AT A SCHOOL OF ART.

SHEFFIELD.

THE annual meeting of the Sheffield School of Art was held on Friday, the 23rd of April, Mr. William Bragge, F.S.A., presiding. The chairman opened the meeting with some pleasant observations, and introduced Mr. George Godwin as having travelled from London at the request of the committee, to deliver the prizes and make an address.

Mr. Godwin, in the course of his observations said,—When first invited to come from London and assist on this very interesting occasion, I did not feel certain that sufficient good could result to justify me in spending the better part of two days on the rail in order to be two hours with you. But it afterwards occurred to me that the visit might, at any rate, have the effect of showing that there are some who are earnest in the belief, that it behoves us all to assist to the utmost the efforts now being made throughout the country to induce the extension of the study of art. Personally it affords me much gratification to attend here. I have long known of the work that has been done in this school, and, as the cradle of Godfrey Sykes, whose career in London was too early cut short, it has a further claim on all who are interested in decorative art.

The Report presented at the end of last year showed an increase in the number of students, and improvement in other respects. Still I cannot say that the number, 292, is satisfactory. In so large and important a town as Sheffield the number of students should surely be much greater, and would be so if the value of the instruction here to be obtained were fully and widely appreciated. One part of the Report, namely, that which shows the increase in the number of students who have produced designs and good drawings of ornamental work, is very satisfactory. The discovery that there was actually a decline in the number of skilled art-workmen in many of the Sheffield trades naturally led the council to encourage students to take up more earnestly these branches of study, and the improvement referred to was the result. There must be no relaxation in this direction, if Sheffield desires to maintain her position. The importance of such a fact, and of the necessity for such steps as may tend to increase the artistic skill of her workmen, cannot be too strongly dwelt on, and should lead all the manufacturers, indeed all the far-seeing inhabitants of the town, to seek a conference with the council of the school with the view of adopting such measures as would tend to correct the evil. Depend upon it, this is no trifling matter: the interests of the town are at stake.

The endeavours that are being made to establish a branch of the school of art, for elementary teaching, in each of your Board schools, should be aided. One, I understand, is at work and doing well; a second is about to be started. Let us hope that, before long, a branch school of art will be established at every Board school. Let us not be contented with hoping, but try to bring it about. One great part of education is to awaken perceptions. In what way can this be better done than by teaching how to perceive. A man or woman who can draw sees everything more immediately and more completely than one who cannot, and gets more information and more pleasure out of it. Of this word "pleasure" I will speak again presently. The value of pleasure, the desirability of affording pleasure, is a strong belief with me. And if its correctness be admitted, it follows that we should do all that in us lies to adorn life,—to make art more a part of it; to render buildings handsome and harmonious; to set up fine pictures and statuary where they can be seen by all; and to beautify everything. Some have sought to contrast the Useful and the Beautiful, and to speak of the latter as if it were an unnecessary luxury. Why, what can be more useful than the beautiful? What can be more useful than to gladden the eye and heart,—to fill the mind with harmonious and refining thoughts,—to make people happy and contented, and help them on to be good?

When this is more fully understood than it is at present, Government and governing bodies generally will feel themselves able to aid less grudgingly than now, and we shall not find our large towns so utterly without works of art open to the public, as, for the most part, they are at this time. Sheffield should have a public picture-gallery, and it surely would have one with little delay if public opinion on the subject were once formed and clearly expressed. The newspapers have lately spoken of large sums of money munificently contributed by citizens of Sheffield for the benefit of the town, and funds to erect a fitting gallery, and pictures and statues to fill it, would soon be forthcoming if they were seriously asked for.

Amongst the good things which are contemplated, I hear of the foundation of university buildings by one of your fellow-townsmen, the presentation of a women's hospital by another, and the progress which is being made with the Museum, which will contain, amongst other things, Mr. Bragge's fine collection of works in metal.

A museum is a silent lecturer, and, especially when it consists of objects allied to the manufactures and pursuits of the locality, will often produce effects little expected. I remember hearing the late J. M. W. Turner, the greatest landscape-painter we know of, say that it was the contemplation of an engraved silver salver belonging to one of his father's friends, and the rampant lion on which he was led to draw, that first inspired him with a love for art.

> "Our sleeping visions, waking dreams,
> Receive their shape and hue from what
> Surrounds our life."

A chord often is struck when least expected, and the world is made all the better because one mind has been awakened by the work of another. Our governing bodies are not so alive to this fact as they should be, and no other proof in defence of this assertion is needed than the armoury in the Tower of London. We have there a collection of arms and armour of great interest and value, in some respects, indeed, unique, without a single person in charge of it who knows anything of the subject, or who is competent to increase it when opportunities offer. The result is that fine specimens are allowed to leave the country, there being no one at the Tower able to judge of their value and arrange for their purchase. Abroad, as at Turin, for example, the national collection of armour is finely housed, and every facility is afforded for the study of it. I mention the Tower armoury in particular as an instance of neglect, because in Sheffield, the capital of steel, it ought to have peculiar interest.

Apart from the value of delight, apart from the effect of art in refining and elevating life, the material value of art to a country is immense. Look to the crowds of pilgrims taken from all parts of the world, year after year, into Italy, for example, by the fame of those grand works with which preceding centuries have endowed her. Look to the noble heritage left to our own country by the Middle Ages in the cathedrals and churches, full of beauty,—"sermons in stones,"—with which the land is studded. It is marvellous the interest with which every piece of stone, glass, and metal, every piece of furniture,—a lock, a chest, a lamp, a tobacco-pipe,—no matter what, the produce of particular periods, is regarded: technical skill, imagination, humour, feeling, have all been enlisted in their production, and have led to this result. We moderns have fallen back in this respect.

For how few of such works produced in the present time will any admiration be expressed hereafter? They are useful, but without that highest sort of usefulness, beauty. A spirit, however, has been awakened, and if the schools of art do their duty, we may hope to see a change in this respect. A manufactory of artistic pottery, for instance, is growing up in Lambeth mainly due to the existence of a school of art there, combined with the spirited and enlightened views of the heads of the establishment, and we ought soon to find similar outcomes elsewhere. Why should not the metal work of Sheffield, besides being as it is the best in the world in respect of temper and power of endurance (great qualities in life as well as steel), become also the most beautiful? To bring this about, however, the manufacturers must feel its importance and afford their loyal aid, not merely by financially supporting schools of art, but by watching the results and giving their hand to such students as may fully have benefited by the means of education provided and show the necessary aptitude and ability.

England has paid, and is now paying, very dearly for neglecting to provide artistic education for the people. Thousands and scores of thousands of pounds are still sent out of the country annually for designs which ought to be obtainable here, and all our leading silversmiths, decorators, cabinetmakers, and other producers of artistic works, find it necessary to employ foreign assistants.

I have been through the objects to which prizes have been awarded, and confess to having been exceedingly gratified. I had been led to anticipate that the school scarcely held the same position that it did two or three years ago. Probably the prizes obtained are not so high in value, and the premium for results given to the master is not quite so high as it was a few years ago; nevertheless there is in the drawings a more than average amount of merit and originality. It has happened to me to see a good many of the schools of art, and I have no hesitation in saying that the ladies and gentlemen who are to receive prizes deserve well of the town for what they have done. With respect to the lamppost, for which the Norfolk prize has been awarded to Mr. C. E. Wilson, I hope some arrangements will be made whereby it will not be allowed to rest simply on paper. Several of the ladies seem to me to have done exceedingly well. Alluding to the offer of Dr. Ryalls, for the best design for an illuminated address, I would say, Dr. Ryalls has done what it is to be hoped every Sheffield man will do—he has, when a design was wanted, recollected his own town and the school of art in it.

We often hear, especially in London, of the want of fitting employment for females; and in making various suggestions on the subject, it has occurred to me to urge on many occasions that the production of shell cameos is well suited to the object in view, and might be very profitably pursued. When I first inquired into the matter, some years ago, it was found that more than 100,000 shells were used for cameos in Paris annually, and mostly came to England, whence, after being mounted, they were largely exported to America and our own colonies. The suggestion that some of our female art-students should turn their attention to this very elegant sort of employment has not been wholly without fruit, and I hope to be pardoned for repeating it.

There is another branch of art work which, as it seems to me, might be usefully pursued to a much greater extent than it is,—I mean carving in wood. The extent to which this is practised amongst the Swiss peasantry is well known. Hundreds of families execute carvings of a particular sort by their firesides, and so materially increase their income. Men, women, and children handle their knives with wonderful facility, and children through this teaching acquire special qualifications for becoming first-rate carpenters, stone-cutters, and decorative painters. In America an endeavour is being made to extend the practice of wood-carving, and your energetic and eminent president, Mr. Bragge, has shown me photographs of doors, skirting boards, chests, and picture-frames, ornamented with carvings by a female class, established for the practice of the art in Cincinnati, and which he has himself recently seen in operation. Why should there not be a class for wood-carving in the Sheffield School of Art, and ultimately in every Board School in the town? We have rare woods of all kinds, and plenty of mechanical skill, and the country might thus be ultimately endowed with a new and profitable branch of industry. If your committee should be led to establish such a class, to inaugurate this movement in England, it could scarcely fail of success, and I should ask permission to offer a modest prize, say ten pounds, to be given to the executant, male or female, of the best and most artistic piece of carving produced in the first year, the work still remaining the property of the executant. I need scarcely say that the true principles of ornamentation must be studied by those who would practise the art, or the results would be disappointing and damaging. *Apropos* of this suggestion, it will doubtless be remembered by many of you that our great portrait-sculptor, Chantrey, began his career by practising the art of wood-carving in this very town, and gradually worked upwards from that to wide fame and large fortune.

A distinguished man, much prized by Sheffield, has lately objected, I understand, to the suggestion often made to workmen that the cultivation of their faculties and the acquirement of knowlege or skill tend to their advancement in the social scale, maintaining that men and women should remain satisfied with the state of life in which they find themselves. I must confess myself unable to agree wholly with him in this. Knowledge and skill are good for their own sake, and bring their own reward; but they also do assuredly afford the means of worldly advance-

ment, and I can see no valid reason why this should not be well understood and acted upon. I believe in the value of aspirations. We must strive for the higher or we shall sink to the lower.

I must hasten, however, to conclude or I shall exhaust your patience.

But speaking here on the 23rd of April, I cannot sit down without brief allusion to the great master of all arts, the many-sided Shakspeare, who has given painters and sculptors an infinity of subjects, and filled our minds with sweet views of every sort of experience, and every kind of human knowledge. In Shakspeare, imagination and common sense worked side by side; his industry was as remarkable as his genius, and he has taught amongst a thousand other things that,—

"There is no darkness but ignorance."

This too is St. George's Day, and I will take it as a good augury. England has often fought under the banner of St. George. Shakspeare makes Richmond exclaim,—

"Advance our standards, set upon our foes,
Our ancient word of courage, fair St. George,
Inspire us with the spleen of fiery dragons."

Let us advance *our* standards. The foes we would set upon are Ignorance and Apathy: powerful foes they are. The objects we fight for are Culture and Progress,—the general refinement, the general elevation, the general good.

A cordial vote of thanks, moved by Mr. Hobson, and seconded by Mr. Hadfield, was passed, the various prizes having been first delivered to those who were entitled to them.

The following is a list of the chief prize-gainers:—

LOCAL PRIZES.

The Duke of Norfolk's Prize of 21*l.*—Awarded to Charles Edward Wilson, for the best Design for Street Lamps.

The Mayor's Prize of 10*l.* 10*s.*—Awarded to Stuart Thorpe, for the best Set of Anatomical Studies.

The Master Cutler's Prize of 5*l.* 5*s.*—Awarded to Stuart Thorpe, for the best Design for a Newal-post and Balustrade.

The Atlas Works' Prize (Antique) of 5*l.* 5*s.*—Awarded to Charles Wilson, for the best Drawing or Model from the Antique.

The Atlas Works' Prize (Life) of 5*l.* 5*s.*—Awarded to Henry A. Tyzack, for the best Drawing or Model from the Life.

The Montgomery Medal.—Awarded to William G. Hall, for the best Drawing of Flowers and Foliage from Nature.

A Special Prize of 8*l.*, offered by C. W. Eyalls, LL.D., for the best Design for an Illuminated Address.—Awarded to John Fanshawe.

NATIONAL MEDALS AND PRIZES.

Awarded for Works in competition between the Works of all the Schools of Art in the Kingdom.

Miss Rose Helen Mawson,—*National Bronze Medal*,—For a Painting of Ornament in Sepia, from the cast.

John Marsh Benson,—*National Bronze Medal*,—For a Painting of Figures in Sepia, from the cast.

Miss Ellen Gilmour,—*National Book Prize*,—For a Set of Designs for Cups and Saucers.

Miss Lucy Holdsworth,—*National Book Prize*,—For a Painting of Flowers in Water-Colours, from nature.

Charles Edward Wilson,—*National Book Prizes*,—For Designs for Street Lamps; also, for a Painting of Figures in Sepia, from the cast.

THE CHURCH OF ST. FRANCIS, ASSISI.

Continuing the notice of the paper read at the Royal Institute of British Architects given in our last issue,* Mr. Beavington Atkinson went on to say:—With regard to the painted decorations, he premised by stating that he used the word "fresco" merely as a generic term; for, strictly speaking, there were no frescoes, the process being secco. And, just as in the architecture they encountered a conglomerate of divers styles and masonries, so in those wall-paintings there was a medley of masters, and a succession of pictorial strata. They all knew of the practice of clearing away prior frescoes for later. Thus, in the Sistine Chapel, a field was found for the genius of Michelangelo; a like destruction and renovation from century to century might be traced on the walls of the Lower and Upper Church. First came Giunta, of Pisa, who was still under Byzantine bondage; next followed his pupil Cimabue; then a clearance was made for a third generation, under Giotto; afterwards followed Giottino, and other pupils. These painters represented the Florentine school in the two churches. But the desire to secure the best talent of the day naturally led to the employment of the leading masters in the rival school of Siena; accordingly they found on the walls frescoes by Simone Martini, commonly called Simone Memmi, and of Ambrogio, or Pietro Lorenzetti. Many of the compositions had suffered grievously from decay and from restorations, and some having been entirely swept away, were replaced by later works in the worst taste. As a rough estimate, the two churches contained from four to five centuries of frescoes, and it would be easily understood how difficult it became after this lapse of time to distinguish with certainty the authorship of individual works, especially as the greater number were either wrecks or restorations. Giunta merged into Cimabue; and he in turn was easily confounded with his immediate followers. Like perplexities beset Giotto and the masters of Siena. Unfortunately, contemporary documents were wanting; the monks were not chroniclers; and Vasari, as usual, fell into errors which long obtained unquestioned currency in the art literature of Europe. Latterly, as they all knew, a more critical spirit had prevailed; unfortunately, the ambition of each successive student had been to introduce a new nomenclature, often little more than guesswork. Assisi had been in this way so specially favoured that the pictures in general were ascribed to two or more authors. The wall-pictures in the Lower and the Upper Church, owing in part to persistent destruction of old work, and the interpretation of new, admitted of no consecutive chronology. Thus, 200 years divided adjacent chapels. It was evident, however, that as soon as the mason had laid aside his trowel, the painter came with his brush, and therefore, the Lower Church being first built, it might be reasonably supposed that there the frescoes were of the earliest date. This was true of those which remained on the nave, the probable date being the first half of the thirteenth century,—the style accorded with that period. The authorship of these works would probably, in the absence of documentary records, ever remain in dispute. Mere internal evidence could scarcely decide between the tribe of Byzantine painters, on the one hand, and Giunta and Cimabue, on the other; the fact, in Mr. Atkinson's opinion, being that Byzantine art had been unfairly decried, and the reformation wrought by Cimabue too greatly magnified. Signor Cavalcaselle argued against the probability of Greek artists having been employed. This might perhaps be strictly true, but Italian artists, working in the manner of Byzantines, would produce almost identical results. In fact, in the face of these designs, it once more became evident that the generic manner went far more than the individual master. A comparison must be made between these frescoes and the mural paintings in the mother church of Pisa, planted in the plain, half way between the city and the sea. In the presence of these compositions in Assisi, he could not but feel how much had been lost in the total overthrow of the Byzantine manner. The figures stood firmly as columns, and the draperies were cast into broad symmetric folds, not very remote from Classic originals. In colour and in decorative service the school was acknowledged to be supreme. Respecting Cimabue, nowhere could this grand and even creative master be so well studied as within these twin churches. Cimabue painted in the transepts of the Lower Church, also in the transepts, on the vault and side walls, of the Upper Church. Of great nobility and beauty was the Madonna, with child and angels, still preserved, amid general clearances, in the south transept of the Lower Church. He was inclined to think that about two-thirds of the Lower and the Upper Church were covered with frescoes by Cimabue and his immediate forerunners and followers. Possibly, indeed, the whole was thus decorated, for it was hard to believe that in those days of religious enthusiasm the great sanctuary should have remained unfinished for even half a century. And yet the next epoch, that of Giotto, was probably separated from the former by more than half a century. Indeed, Giotto was not born till forty-two years after the Under Church was finished. In the Lower Church, to Giotto and his scholars were assigned the vault over the high altar, the greater part of the south transept and two adjacent chapels, and in the Upper the best parts of the nave. These pictorial creations were almost too well known to need description, even did space permit. They were copious in idea, symmetric in distribution of the figures, and, compared with Byzantine art, light and animated in tone and colour. If they had a fault it was one perhaps inseparable from the system; they were, he thought, open to the objection of being too much of the nature of easel pictures, just hung to the wall; but this exigent criticism would strike at most moral decoration, save that of the ceiling of the Sistine. Among all the works of Giotto, none showed more creative genius or technical power than the three vows of St. Francis on the vault of the Lower Church. The Sienese school had a shorter career at Assisi than that of Florence; it was limited to the fourteenth century, and the space it occupied did not extend beyond the north transept, small portions of the south, and the chapel of San Martino, all in the Lower Church. The paintings in the chapel were for drawing, character, and perspicuity of narrative, among the most mature works of Simone Memmi, now called Simone Martini. The Sienese seemed to have been required to conform to the already existing Florentine system of decoration: accordingly, he was sorry to say, they surrendered one of the most distinctive characteristics of the school—that of a gold ground. In Assisi, as in the Arena Chapel, the scale of colour conformed to the more naturalistic and less decorative background of blue. In the restoration the greatest difficulty had been to know what to do with the amazing mass of frescoes. They presented different stages of decay, amounting in many places to absolute destruction. Some had crumbled wholly from the walls; others were so far obliterated that the subjects could hardly be deciphered at all, while scarcely a single composition remained without the loss of a head, a hand, or an entire figure. To enumerate a tenth or a hundredth part of the pictures ruined in Italy would occupy time to dreariness. The plan and process he would adopt with regard to the matter would be as follows. He mounted the scaffolding in the Upper Church and there found workmen steadily operating upon the frescoes of Cimabue, under supervision. Where a large piece of wall had fallen into rottenness and been denuded of its picture, it was simply cut out and replaced by sound cement. Again, where only a part of the intonaco was in decay a chisel removed the crumbling mortar, and a trowel replaced the void by a firm material which bound the surroundings together as by a wedge or a plug. The process it might be observed was honest, the new mortar was so coloured as to speak distinctively for itself. Next and chiefly, these parts had been operated upon, fortunately very considerably, which, though in decay and threatened with destruction, were still capable of preservation. He might observe that the malady which afflicted these frescoes was one common to the whole genius of wall paintings. The surface, or pellicle, of the picture rose into blisters, the mortar became disintegrated and ready to fall down on the floor as dust, thus the entire work must speedily die if left to its disease. For the purpose of fixing these flying particles and fleeting paints, some glutinous fluid was infused; and then surface pressure applied, gently but firmly, brought the picture once more soundly together. Furthermore, the frescoes were refreshed, the dust of ages was cleared off by means of simple water and a soft brush; then, finally, some fixing medium was washed over the surface, which, when sucked into the pores, rendered permanent the perishing particles. He naturally concluded that this fluid medium was identical with the silicate known in Germany and England as watergiass; but he was assured that the process was both a novelty and a secret. Somewhat the same medium, whatever it might be, would be applied to the external stonework, not only for the purpose, as in the Houses of Parliament, of arresting further decay, but also of precluding the percolation of the rain and moisture, which had proved, as might have been readily conjectured, destructive to the frescoes. The result of these operations, though not all that might be desired, was on the whole satisfactory. Without the addition of colour, or the use of a paint-brush, the frescoes were wonderfully "refreshed"; and they were, moreover, placed in permanence. In conclusion, he said in process of time it was proposed to restore the whole convent, including the Hall of Musicians; and it had been suggested that then the vast structure might, as a Lyceum, be devoted by the Government to educational uses. Perhaps it was not too much to say that the works undertaken could have no end; for structures of this magnitude, especially when old, must ever be under the process of restoration, as a means of preservation. At Assisi an architect and a caretaker of the pictures should always be on the spot. Aptly had the churches and monastery of St. Francis, in their present dilapidated state, been compared to a chronic invalid, who needed to be constantly in the hands of a medical man.

* See page 362, *ante*.

Mr. Halliday stated, that the opinion he had formed while at Assisi was, that the paintings in the lower gallery were quite beyond everything that he had ever seen.

Dr. Barlow had been considerably impressed with the painting of the Madonna and Child, of Cimabue, when he visited Assisi thirty years ago He believed there was no better place to study the history of art than at the Church of St. Francis.

Mr. Crace was of opinion that the paintings were not fresco, but secco, because at the time fresco paintings were not in vogue. He considered that the Upper Church of Assisi was a valuable specimen of the art of distributing colour, and was worthy of notice by architects.

The President said that the architecture connected with the buildings was a wonderfully exact testimony to history. The view taken that the church had been built by a German architect, as distinguished from a French or any other architect, was quite clear, as they knew the distinction between French and German architecture, for there was a distinct feature in German architecture by which it could be determined at once. He believed that the mural decorations, apart from being high class paintings, were well worthy of study by young architects.

SEA-SIDE TOWNS: PORTSMOUTH AND ITS ARCHITECTURE.

MANY, many things are said, here most certainly, in these days, to make things *architectural* plainer and still more plain, to the genral public eye and general intelligence. But little has been missed, but there are things which every now and then occur to us that seem to have at the moment at least a novel interest, and which have not been prominently touched on. One of these is the "architecture," special in many ways, of sea-side watering-places. These will be in a week or two again in the public eye, and will be again for a time all the fashion, and those who go to them for long or short time are certain to be at leisure to look about them with some interest and curiosity at all things about them possessed of artistic interest. Nature and art here come together, and a wide enough field opens out to view. What is it that we specially see at a sea-side town, and is there anything special in the modern laying out and building of such fashionable and exceptional places? With their long rows of "terraces," huge hotels, and smart houses facing the water, all know pretty well, even from prints, what a sea-side town is like, and how it looks, and Turner employed no small part of his time and strength in depicting them;—in all sorts of weather, and under almost every variety of aspect. It is indeed wonderful to note how *much* he has made of them, and how diverse they individually look, considering what they as a rule really are. It is amazing to note what he did with them, and how he compelled the restless sea itself to beat up to them, and about them, in a never-ending and infinitely varied way!

These or some such thoughts must needs strike every reflective observer who visits a watering-place, wherever it may be, and whether,—and this is the first thing worth the noting,—the said seaside town be a quite new or an old town with new additions and improvements. Let us take an example, and note down a few things worth record; such notes, slight as they must be, may guide an excursionist here and there.

Let us cite the good old town of Portsmouth, and *now*, too, by the way,—for it is difficult nowadays to find a place wholly given over to age or left to itself. This time-honoured place, so full of soldiers and sailors, and so famous in naval history and story, possesses all the characteristics of a regular watering-place, though it is not one. As all know, it faces the sea, and certainly has right in front of it one of the prettiest visions to be found anywhere on the coast,—the Isle of Wight opposite. It would be difficult to find any spot of earth more happily placed for the purpose of looking at, than is this beautiful little island, in relation to that part of the coast from which it is so well and pleasantly seen. The opposite town of Ryde, at times and under certain conditions of atmosphere and sunlight, looks like a fairy scene, and is just that which Turner, in his wildest moods, loved to gaze on unweariedly, and to fix afterwards on canvas. There is most happily just sea enough between the Portsmouth coast and the island to give the due effect of distance. Hours may well be spent in gazing at the ever-changing scene.

But there is not only the distant prospect of the beautiful island to be found in the town of Portsmouth, but there is the town itself; remarkable, as we say, in very many ways, and most of all perhaps from the signs in it, every here and there, of the past, and also from its present thoroughly "fortified" condition—for the good town literally bristles with cannon. How an enemy could land, and where, will be the wonder of not a few who care to look and speculate on such matters. A hostile fleet either of war-ships or open boats sailing up the Solent, or Spithead, must needs speedily come to grief, so eagerly do the ponderous guns point all ways, and command all approaches. We say nothing here of the ironclads, and gunboats, and "torpedos," nor even of the frowning forts, which stand in the middle of the sea between the town and the opposite island coast. If Portsmouth be indeed the sea-gate of England, it cannot be said to be unprotected. Yet, if we dare say it, there are spots on the coast not out of sight of Portsmouth town either, where as it would seem, a very *very* clever and cunning enemy might effect a landing without much hindrance from fort guns at least; such enemy, by the bye, being as we will suppose, very quick indeed in his movements.

It is impossible for us here, as a matter of course, to look on these things otherwise than artistically; and we cannot but contrast in our mind's eye the coast line of England in these times, with so many heavy guns of enormous size and weight frowning on the sea, with the every here and there a smart hotel, or a fashionable row of houses, with that former condition of things when "fortifications" were so unlike to those that now are. In the old Norman days the "fortifications" were but simply stone-built castles, but fully as effective in their day, as powers of defence, as are the earthworks and artillery of the present. The Norman castle stood up high, and grey, and strong built, with loopholes for archers, and overhanging parapets, and must have well appalled an enemy who ventured within sight of it. Every here and there on the coast there still, as all know, exist the crumbling remains, or ruins, of these feudal castles, or strongholds. We sometimes doubt whether these really fine specimens of utility, and artistic skill, have as yet got their full meed of commendation, or even fair attention. So thoroughly do they harmonise with the places where they are, with the rugged sea coast, and with the restless sea itself, that they almost seem as if built to fence the land against it. It is strange, too, and it is worth the noting, how much there is between the "fortification" of to-day and the strong "castle" of the Norman; the main ideas in reality being the very same. In the old castle there was the inner "keep," or strong square tower, the main and last defence of the whole place. This was surrounded by a thick wall, with towers at stated intervals to flank it, with an entrance-gateway with tower on either side of it, and which formed, perhaps, the most imposing part. It must have been a right courageous heart which did not quail as it passed under it. In the modern fortification all those arrangements are still to be found. In the great Cumberland Fort, close to the sea, there is an inner fort or keep, as in the old castle, and this is surrounded by a brick wall pierced with holes for the riflemen, and with a parapet for cannon, and with semicircular towers, or rather projecting walls, to flank it, and with a small, but hardly imposing, entrance gateway. It must be added, that in both cases huts and other accommodations for the defenders abut against the inclosing wall. There is a moat, of course, and some curious arrangements, not a little puzzling to make out sometimes. It is wonderful to see how very little is changed, gunpowder only excepted, and taking the place of *force* which drove the primitive arrow, whether large or small. So much for use and defence sake. But artistically there most surely is a wide gulf between the old and the new, for in these modern fortifications no sort of effort, or even momentary thought, seems to have been given to artistic, still less to *architectural* considerations. Whether of earth, or stone, or brick, there is not a thought of putting anything into an *artistic* shape. Not a single grand or imposing line to be seen anywhere, and yet one can hardly imagine a case wherein there has been, or can be, better opportunity for it. Whether, indeed, it would be possible to rival in modern cannon-defended fortification the imposing and solemn architecture of the Norman stronghold, may be a question, but still a something. An approximation might well have been looked for. The cannons, huge and strong, solid earthwork and granite, *ought* surely to out-do, even artistically, the grey rubble and the bow and arrow; but they most certainly have *not* done so as yet. Portsmouth, it may be remembered, was once on a time the subject of no little controversy, and vast sums have been spent in the effort to fortify it. It was one of Lord Palmerston's "defences" of the country, and Mr. Fergusson, and not a few others, skilful in such matters, talked not a little about it; but with all this the town has but a weak look. It is on the water, we are apt to think, that our real strength would be found to lie.

There is yet one other point of interest, and most instructive interest too, to be met with in the remains, to be made out with some difficulty, of the *past* generation lines of defence, long before rifled cannon were thought of. We allude to the remains of the town moat and wall, and gateway through it, the Key-gate, as it is called. There is but little left, but it is of interest, and shows what things were once like,—Norman days having long passed away. This special gate, by Inigo Jones himself, is well worthy of him. It is of Portland stone, and not unlike the well-known water-gate now buried almost under the Thames Embankment. The stone carving and cutting are admirably executed, and the whole gateway, with the little that remains of the wall, with the moat and tumble-down dull red brick houses behind it, a little ruinous some of them, have quite an antique look, and are right pleasant to look at after the newness of the railway side of the town. There are some fine old trees, too, hereabout, which do much to add to the quaintness of this part of the town. To those who need a little architecture when they go to get a glimpse of the restless sea, we commend this bit of Portsmouth to their notice, as combining more than one artistic and natural novelty,—for, to say the truth, things hereabouts have been a little neglected, and the word "restoration" does not seem to have made its influence felt. Time is necessary to bring even red brickwork to its full tone of colour, and this is only to be attained in these days in *neglected* places!

It is well to note that this old town,—for old it is, as well as new,—dates from very early times indeed; for it is mentioned in the Saxon Chronicle as existing in the year of grace 501. It was a naval station in the Roman time. It was here, too, that Henry III. got together a large army wherewith to invade France in the year 1256; and in 1377 an attempt was made by the French to take the town, and though the attempt did not succeed, a large part of the town was burnt. This led to the idea of fortifying it, originally begun by Edward IV., and which has been going on ever since; till now, as it is thought, it is all but impregnable,—the fortifications extending literally all round it. A good map of Portsmouth would be a desideratum as it now is, and another interesting, in an antiquarian sense, of the town when Inigo Jones did his work in it, and when the fortifications were so widely different in character and appearance. Inigo Jones was indeed a master of his craft, and though the work here by him is little enough, it does but serve to show how well he worked, and how much cause there is to regret that he had but so comparatively few chances. It would be good vacation work for any architectural student to go to work, and make measured drawings of Inigo Jones's work here.

We may note the parish church, of interest to church builders and restorers; for it has a good deal of Renaissance in and about it. A good lesson may here be learnt, for to say truth, these "Italian" additions to a Gothic church do not jar against the original work, and the spirit of it, so much, or nearly so much, as the *newness*,—if we may use the term,—of more modern work. There is a good deal for the architectural student in seaside Portsmouth.

Liberal Donations. — Following up his recent handsome presentation of scientific prizes to the Manchester School Board and the Union of Lancashire and Cheshire Institutes, Mr. W. Aronsberg, optician, of Manchester, has written to the mayors of the principal towns in the two counties, presenting them with many thousand cases of drawing and mathematical instruments, to be awarded as prizes under the auspices of the school boards, mechanics' institutes, and other agencies for the spread of instruction. They have been gratefully accepted.

ANCIENT MONUMENTS AND HOW TO DESTROY THEM.

Whatever may be the future of Sir John Lubbock's Bill at present before Parliament for the preservation of ancient monuments, there is no doubt of the goodness of its intention. No antiquary or archæologist exists who does not earnestly hope against hope for its success. We have among us unfortunately too many who care for none of these things,—too many whose ideas concerning objects of antiquity run in the groove of a bygone alderman, who affirmed that the British Museum was mainly filled with marble heads without bodies, and marble bodies without heads, and was of opinion that they might be of some benefit if converted into lime. And, ranged on the side of these indifferents are those like the owner of Stenhouse Mill who was no *dilettante* either real nor pretended. He was simply a country gentleman who had *other* things to mind, and never moved out of the parish in which he was born, and in which he died an octogenarian. He it was who utterly demolished the celebrated Roman building named Arthur's Oon or Oven, which stood in the neighbourhood of Carron Ironworks. The building might have escaped destruction had he not been poor, possessed a numerous family of children, his income small, and a considerable part of it derived from the mill. So he pulled down the building, and turned the stones to profit in repairing his dam.

There are many villages and towns in Scotland which are monetarily benefited by the annual tourists who resort to their neighbourhood in order to inspect the remains of towers, and temples, and camps, and earthworks of the olden time, and yet they are as careless in their preservation of these attractions as are a large per-centage of the tourists themselves, who chip and chop all round, and thus carry away by piecemeal objects that thousands hold in reverence. The Boar Stone, a boulder of blue whin, beside which Bruce planted his standard at Bannockburn, would long ere this have disappeared, leaving no wreck behind, had not a strong iron grating been placed over it; the grave-stone of Flora Macdonald, which, not many years after its erection, was levelled to the ground and broken by the minister's cow, was, in spite of the abundant crop of nettles which surrounded it, almost entirely cleared away into the pockets of tourists; what little wood was left of Alloway Kirk and Wallace's Oak was seized upon by snuff-box manufacturers; and, as an example of pilfering on a large scale, it is only necessary to refer briefly to the story of Trinity College Church, Edinburgh. This church was founded in 1462 by Mary of Guelders, widow of James II., and was a beautiful example of the ecclesiastical architecture of the period. In 1845 it was pulled down for railway accommodation; every stone was carefully marked, and they were all removed to a field until such time as a site for their re-erection could be determined on. In the settlement of this site litigation followed litigation, and years rolled by; at last the site was fixed, but when the stones came to be examined the choicest of them had entirely disappeared. Every reader of Sir Walter Scott's works knows how bitterly he regretted the removal and partial destruction of the Cross of Edinburgh, but he was act and part himself of a piece of snobbish Vandalism. In the beginning of last century a cairn, known as Mushet's Cairn, was raised in the hollow below St. Anthony, to commemorate a brutal murder perpetrated on the spot. This cairn was the trysting-place of the lovers in the well-known tale of Jeanie and Effie Deans. George IV., on his visit to Edinburgh, was desirous, among other things, of visiting the cairn; but, as the ground round it was marshy, the cairn, to oblige his Royal Highness, was removed to a drier part of the park, where it still remains.

Many a time has the writer of this paper been sore distressed by the conduct and conversation of the ignorant *ciceroni* who at the rate of so much a head retail romances and old women's fables to the visitors of such places as the Abbeys of Melrose and Dryburgh, and the Chapel of Roslin. But there is something worse than their trashy description. They are armed with long rods, which they insert up the hollow stone tracery, to show that it is hollow, or tap the heads of the carved figures, in order that there may be no mistake as to which is a devil and which an angel. The foregoing remarks show that ancient Scottish monuments have many enemies; but it is sad to think that the worst enemies they have are to be found among those who claim to be antiquaries and archæologists. It is not necessary to mention names. One of these acquisitive collectors of ancient things died in Scotland some twenty or thirty years ago. His collection was brought to the hammer. The sale lasted many days. Several brother collectors recognised many things which had from time to time mysteriously disappeared from their private museums, and other treasures were displayed in the auction-room which had been spirited away from the ruins of which they formed the principal attraction. In Strathfillan there is a deep Pool, called the Holy Pool, where in olden times they were wont to dip insane people. During a portion of the ceremony a bell was rung. This bell was about the size of a hand-bell, and a relic of a chapel that adjoined the pool. This bell was to be found day and night on the river side. It was stolen by an English antiquary, about the beginning of the century. A writer, in recording the theft many years afterwards, says, "Popish tradition endowed it with the power of returning to its resting-place; but it would seem England is deemed a congenial home." Strange, however, to say, the pilferer, on his death-bed, gave orders that the bell should be restored to the parish, and his wish was carried into effect about three or four years ago. The story in detail may be found in the Transactions of the Edinburgh Antiquarian Society, and a very interesting story it is.

HARDENED OR TOUGHENED GLASS.

Pliny, Petronius, and Dio Cassius tell us that flexible and malleable glass was manufactured in the reign of the Emperor Tiberius. They relate, further, how the lucky inventor—he is called by some a glassblower, by others an architect—presented to the Emperor a dish made of the new material, hoping to obtain a handsome reward. But the Emperor, apprehensive lest this flexible substance should depreciate the value of gold and silver, angrily threw the basin to the ground, when it bent like some soft metal. The inventor took a hammer and at once straightened the dish again, upon which the Emperor gave the order for his instant execution,—to prevent the secret of the manufacture being communicated to another person. He succeeded. People have racked their brains ever since to find out what kind of malleable glass that may have been, and it has been tried in modern times to explain the secret by suggesting the substance to have been aluminium or melted chloride of silver, without, however, satisfying others with this explanation. It is only lately that we hear from different quarters of the invention of a kind of glass resisting concussion and being proof against the effects of fire.

Though this idea to manufacture a kind of hardened or toughened glass is not new, it seems, nevertheless, that the older experiments in this respect were not at all so perfect as those of the present day. In the last century, Réaumur tried to make porcelain from glass, but he only succeeded in producing what is still called Réaumur's porcelain. Lately, M. de la Bastie, a French engineer, possessing ample means, has tried to improve on Réaumur's process, and, after long and patient investigation, succeeded in producing a glass which is unbrittle, and which, at the same time, preserves a perfect transparency. Last autumn a company was started in Bourg, France, under the title of A. de la Bastie & Co., with a capital of 48,000*l*., having for its object the utilisation of M. de la Bastie's valuable discovery. Prof. Alex. Bauer, in Germany, has also pursued the manufacture of this glass for some time, by following a course analogous to the method of the French inventor. The Association of German Glass Manufacturers entered into negotiations with M. de la Bastie for the sale of his secret, but without success, his terms being too high. It has, however, been since ascertained that his process is a very simple one. It consists in heating glass to a certain temperature, and then plunging it into a hermetically closed bath of oleaginous substances, which melt at a temperature much below the boiling point of water. There are many niceties in connexion with the process which must be carefully studied, to prevent failures. The glass may be underheated or overheated, or it may, though heated to the proper degree, be spoiled in its transport to the bath. The constituents and the temperature of the bath must also be properly measured. M. de la Bastie has now constructed furnaces and baths overcoming all these difficulties, and answering the conditions required for carrying out the process successfully. The time occupied in the process is merely nominal, and the cost of production is very small.

Professor Bauer prepares the glass by heating a plate until it may be bent, and then immerses it in a paraffine bath heated up to 200°. He then cools the plate, not gradually, but quickly, to a certain point, and then more slowly.

In Silesia, where repeated experiments have been made with M. de la Bastie's glass, a new glass, called "metal glass," has lately been produced at the glass-works of Count Solm, near Klitschdorf, which has properties similar to the two descriptions of glass already mentioned.

The most valuable properties possessed by the different descriptions of the new glass are their great strength and solidity, and consequent resistance to concussion. The articles manufactured from it may be thrown against a wall, across a room, without breaking. When thrown down, the object emits a singular sound without breaking, but if violently thrown to the ground it is smashed into innumerable fragments. Water may be boiled in a glass saucer over a fire, and the latter suddenly removed to a comparatively cold place without affecting the saucer. If a corner of a piece of glass is held by the hand in a gas-flame until it becomes very hot, the heat is not transmitted to the other portion of the glass, nor does the glass crack from unequal expansion. While a 2-oz. weight falling on a piece of common plate-glass from a height of 24 in. will break it into several fragments, the same weight falling on a thinner piece of hardened glass from heights ranging from 2 ft. to 10 ft. produces no impression, the weight simply rebounding from off the glass. An 8-oz. weight, tried at 2 ft. and 4 ft. respectively, does not injure the glass, but upon the height being increased to 6 ft., the glass breaks. Instead of breaking into about a dozen pieces, however, like ordinary glass, it is literally smashed to atoms, as happens in the case of its being violently thrown to the ground. It would thus seem that hardened glass possesses enormous cohesive power, but that if its equilibrium is too violently disturbed at any one point, the disintegration extends throughout the whole piece, the atoms no longer possessing the power of cohesion.

But the new glass has one fault: it cannot be cut with the diamond, as it is much harder than the common kind. With its hardness its density has also considerably increased. In appearance, however, the new glass does not differ much from the common sort.

There can be no question as to the practical importance of the new discovery, nor can there be any doubt of its value in the arts, sciences, and industry. The applications which suggest themselves are innumerable; at present the articles manufactured comprise only watch-glasses, plates, dishes, and sheet glass, but beyond the usefulness of the process with regard to objects of domestic use, its practical value in connexion with the applied sciences cannot be denied. It will be found useful for vitriol chambers in the manufacture of sulphuric acid, and for piping in chemical works. As the hardened glass cannot, however, be cut with the diamond, it can only be used in the sizes into which it is cut before toughening. It may be easily polished, and it can also be cut by the wheel, as for lustre work, and the like, and can also be engraved by means of fluoric acid, or by the sand-blast process.

Up to the present time, no satisfactory explanation has been given as to the causes of hardening. The phenomenon of the breaking of toughened glass into atoms recalls the well-known glass-tears or Rupert's drops and the Bologna phials. On breaking off their points they burst; but if they are removed by corrosion, no effect is produced. The process of hardening reminds us that in slowly cooling glass a separation of molecules takes place to a certain degree which is prevented by rapid cooling. Formerly it was believed that glass was a perfectly equal and amorphous substance. But already in 1852, Professor Leydolt (by corrosion with hydrofluoric acid) proved that all our glasses, showing no trace of crystallisation, are nevertheless of a partly crystallised nature. If glass is heated to melting, or even only to softness, and then cooled very slowly, it frequently happens that a separation of the molecules takes place, and crystallised groups are formed. Réaumur's porcelain is produced in this manner, and experiments have been made since his time, by different persons, having the same ob-

ject in view. However, all these experiments have confirmed the separation of molecules; when the latter takes place, the glass is called "devitrified." It may be gathered from the latest experiments that glass, in its melted state, is a pretty homogeneous mass, the molecules of which are separated more or less in cooling. If the cooling up to a certain point is rapid, separation does not take place to such a degree, and the glass retains more of its homogeneity, and this may be the reason, on the one hand, of the toughness of hardened glass, and, on the other hand, of its peculiarity of breaking.

FRENCH REPORTS ON PUBLIC WORKS.

SEVERAL Reports have been drawn up, by French hands, on the system of public works developed in different countries of Europe. One only has hitherto been put in general circulation, and it relates to the principles upon which great undertakings, of a national or municipal character, are carried out in England. Of this we have already given an account, but others have been prepared, on the United States, on Germany, on Greece, and on France itself, the last being, perhaps, the most interesting. That on America we have not seen, but of the others an examination has been allowed us, especially with reference to the working of the principle generally obtaining in French cities. The statement, so far as it refers to this country, is principally directed to the relations existent between public works and the Legislature. At the outset, we are confronted by two distinct and different principles of action. With the French, the original impetus is, as a rule, given by Government; with the English, it is the result of private enterprise, which, after arranging all details, appeals to the Legislature for a general, and also a specific, sanction. With the French, an entire programme is laid down at once; with the English, according to our critic, there is no telling in what direction it may ramify. With the English, scarcely any Imperial power of administrative intervention exists. With the French, the Executive is the practical substitute for Parliamentary authority. Not altogether, however, as may witness the Mont Cenis and Channel Tunnel projects. The French writer, however, finds the usual difficulty of his countrymen in understanding our term "Royal Engineers," since he asks whether they could be trusted to construct a bridge, plan a railway, survey a road, or do anything beyond the advancing of military parallels, or the erecting of a fortress. He points out that no public grant in the United Kingdom ever assists a Joint Stock Company, unless in the case of mails, and that our insular independence is very much in contrast with the parental fashions adopted abroad; but, upon the whole, he is fair enough in his purview of our railroads, highways, tramways, canals, and other internal navigation, ferries and bridges, docks, harbours, lighthouses, and beacons, although there may be matter left for another series of volumes in the subjects of drainage, street improvements, lighting, and sanitary provisions generally. M. de Blerzy, in one of the supplementary Reports referred to, and which will, in all likelihood, be given to the world shortly, sets out, with less reference to the politics, so to speak, and more to the practicalities, of the question, by saying that the climate, customs, and population of every city or town to be dealt with should, in the first instance, be taken into account; whether, for example, the inhabitants are multiplying, or stationary in point of numbers; whether their reliance for water is upon natural currents, or sources artificially opened; and so forth. But, unlike M. de Franqueville, he looks for very little assistance from the State. The community, he asserts, should construct its own aqueducts, as did the citizens of ancient Rome; but the parallel, considered in the historical light, is hardly justified. In many parts of France, he adds, where water is abundant, it is also scattered, and the necessity arises of collecting the flow of various rivulets and streams, and accumulating them, either in the channels of great aqueducts, or in permanent reservoirs, fitted with every aid for dispersion. It is a popular axiom in France that, next to the air we breathe, the water, which is in a thousand ways essential to us, is the most important element of nature: it constitutes half our food, it is the chief agent of health, and yet it may be, as in the fens of Lincolnshire, or the marshes of the Agro Romano, ruinous to human life. We cannot follow the French Report through its abstruse speculations upon the qualities of the universal fluid, or into its estimate of the amount which London would save in the cost of soap were its water-supply improved (the estimate is 400,000*l.* annually); but his evidence with respect to the hydrometer, as applied to the yield of rivers and wells, is of the utmost value. There is a fountain at Cannes, known as the Bleaching Well, which, through the assistance of a slight apparatus, runs as pure and clear as though from a still. There is another in Paris, nicknamed "The Oille," which the simplest experiment has converted into a state of complete limpidity; but, taken for all in all, the natural supply of the French capital, issuing from beds of gypsum, is bad, as the report candidly allows, the Seine being far more impure than the Loire, Garonne, Saône, and Rhone, though by no means so abominable as the Tiber, which, for drinking or bathing purposes, was repudiated by the ancient Romans. With the hydrometer the Parisian can distinguish between the current of the Seine and that of the Marne, even after they have apparently mingled. The Report does not, to employ a familiar phrase, mince matters in any way. It declares that Paris is ill-supplied, and must be supplied from a distance. "If there be a mountain on the line, let it be tunnelled; if there be a valley, let it be bridged"; or resort might be had to syphons of a gigantic scale, such as are said to have been used in Spain, Sicily, and the provinces of Alsace and Lorraine, as well as in French Algeria, and, in modern days, at Dijon, Bordeaux, Toulouse, and Marseilles, which last city is saved from total drought by its magnificent system of conduits. There a river has been changed into a canal, actually carried from hill to hill on stupendous arches, and it is not too much to say that, but for this grand undertaking, Marseilles would have run the risk of perishing from off the face of the earth. M. de Blerzy does not think that Paris is in any similar danger; nevertheless, he urges that a partial failure may at any time occur, and that the increase of population threatens serious embarrassments for the future. It may not be generally known that few houses,—except new hotels,—in the metropolis of France are served above the first, or at most the second, floors; and the latest scheme is that of an enormous reservoir on the heights of Montmartre, 150 ft. above the general level, fed from artesian wells, emptied every day, filled every night, to double the municipal supply at once. At present, the mains are principally charged from the Canal de l'Ourcq; the semi-artificial cisterns of Grenelle, the Seine, and the aqueduct of Arcueil; and in the hot seasons there is often, after the thoroughfares have been even lightly sprinkled, an absolute dearth. The river shrinks in its bed; the pumping-machines, however colossal their power, draw only insufficient quantities; and yet it is believed that, at a depth of about 1,500 ft., exists a subterranean lake, perfectly fresh and practically inexhaustible. But Paris, not relying upon this doubtful treasure, is already engaged in bringing water from the reservoirs of Dhuis and Surmelin, which, however, are fed from the same sources as the Marne. Indeed, a large number of similar works are in process of completion to accomplish the same object; great lifting engines at Bibly; artesian wells at Passy; a reservoir at Montrouge; an aqueduct over the hollow of the Vanne; and still the poorer quarters have the strongest reasons for complaint. "London," it is suggested in the Report, "will one day drink from the lakes of Wales; Paris, then, might at least bathe in the waters of Champagne. From another point of view,—that of sanitary improvements,—the statements laid before the Minister are exceedingly interesting. The Sanitary Police of France, as it is termed, cannot be described as otherwise than extremely defective. So much is admitted in the Reports themselves. There are no adequate provisions for preventing infection of the atmosphere or the water, whether by noxious manufactures, noisome dwellings, bad drains, or the influence of corrupt social customs. In England, in Belgium, and in Germany, it is urged, authority interferes, whereas in France no such jurisdiction exists; but, on the other hand, we are told, French manufacturers, of their own accord, are running up chimney-stalks loftier than the Vendôme Column, in emulation of Manchester and even Glasgow. One, at Rouen, it is said, would surmount the Great Pyramid, and stand comparison with the spire of Cologne. Moreover, they have begun to appreciate the advantage of smoke-consuming furnaces, and are working out a considerable reform, voluntarily though, in many parts of the country. The running streams are no better than fœtid sewers,—as the Bierre, at Paris, and the Ill, at Mulhouse, which resemble, in this respect, the waters of Ghent, Mons, and Verviers, in Belgium,—all black, poisoned, and poisonous. The French confession is to this effect: — "The smallest neighbourhoods in England, as a rule, compare favourably with the largest centres of population in France,"—not merely towns with peculiar facilities, broad, open suburbs, and wealthy corporations, but humble places, which have to consult their own interests, with smaller means and less ostentation. Possibly this criticism is a little too generous; at any rate, the contrast between France as represented by her public buildings, and as represented by her public works of a more utilitarian character, is hardly capable of exaggeration. As for Paris, its history very much resembles, so far as this topic is involved, that of London. Seated on both sides of a river, the river received all its impurities; the drains were originally open, and afterwards covered ditches running at right angles to the stream; but the irregularities of the surface are so great that at no time could a direct and general flow in the same direction be expected. It was not, however, until after a long experience of evil that a project was formed of constructing underground galleries, built of stone, and lined with cement, upon a scale of magnitude approaching to the Roman type. The cost was immense, and yet the result is no more than fragmentary, and a further proposal is now made for works of purification and irrigation, the latter designed to enrich the generally sterile valley of the Seine, which, according to French agriculturists, might be made to rival the famous plains of Brie and Beauce. In prospect of this enterprise, designs of barrages, basins, and artificial channels of the boldest sort are recommended to the attention both of the central Government and the metropolitan municipality. If we would form an idea of the extent to which these purposes may be carried out by the independent action of a rich commonality, it is not necessary to look in the Reports beyond the City of Lyons, historically surnamed the second capital of France. This is, indeed, a city of public works,—the French Rome it has been called. There is no cessation in the labour of improvement,—new bridges, quays, slaughter-houses, museums, libraries, fine-art galleries, streets, monuments, and fountains; new markets, railways, canal junctions, warehouses, and factories; and, so anxious are the inhabitants to hold together, as it were, that the buildings are continually being carried up to a greater height. At the same time, space is not stinted in the new city, properly so-called. The Municipality made a splendid grant towards the piercing of the Rue Impériale, which strikes straight through from one surburb to another; in fact, it has invested, within the last twelve years, sums that would appear exorbitant, were it not for the magnificent results obtained; as in the restoration of the Hôtel de Ville,—a perfect palace; the Museum of Art; the Exchange; the pulling down of the local St. Giles; the opening of a noble park; the canal connecting the two rivers, and bringing in an abundance of sweet and wholesome water; and the network of sewers, such as any capital in Europe might be proud of. These Reports, however, are full of similar testimony to the wonderful progress of public works in the Old World as in the New, and they are solid contributions to the chronicles of the time.

NEW POST-OFFICE BUILDINGS AT PECKHAM.

THE Government have just completed and opened a block of new Post-office buildings for the Peckham sub-district. The new buildings, which are situated a little beyond Rye-lane, in the direction of New-cross, contain accommodation for the transaction of the money-order and telegraph departments, in addition to offices more immediately connected with the receipt and delivery of letters. The main frontage and entrance to the building faces High-street. It is built of white Suffolk brick, with stone dressings, window-sills, and keys, the elevation being relieved by black brick bands. The building contains the ground-floor and story above, in addition to a basement. The ground-floor, as well as the upper story windows, and the principal entrance, are in three divisions, with arched heads, the space between the arches being filled in with diaper work, and the central

portion of the elevation is surmounted by a gable, with stone coping. The money-order, postage-stamp, and telegraph departments are approached from the High-street entrance, as well as a large sorting-room and other offices in the rear of the building, the sorting-room being lighted by a skylight the full dimensions of the apartment. The upper portion of the building contains the residence of the principal officer or postmaster for the district, and in the basement there are kitchens, and cooking arrangements for the letter-carriers and other *employés*, together with other apartments for their accommodation.

OXFORD MAIN DRAINAGE.

THE construction of the out-fall sewer, which has been delayed all the winter by the continual floods, is now being rigorously pushed forward by the contractor, Mr. C. Dickinson, under the direction of Mr. W. H. White, C.E., engineer to the Local Board.

The work presents considerable difficulties, the sewer having to be carried under the different branches of the Isis and Cherwell, and to be built, for the most part, in a bed of gravel of a very porous character, and at an average depth below the water level of about 10 ft., thus necessitating unusually strong and careful construction to exclude subsoil water, and heavy pumping operations while the works are in progress.

During the winter months several miles of branch sewers have been laid, and in various parts large quantities of water held up in the gravel-beds, lying in the undulations of the Oxford clay, had to be contended with.

ST. LAWRENCE'S CHURCH, NEW BRENTFORD.

THIS church has lately been much transformed in appearance, and the accommodation increased by the addition of a south aisle. Previously to the recent works, the edifice possessed little architectural character, and was encumbered by extensive galleries. The original western tower, built in the sixteenth century, was quite buried by large modern staircases leading up to the galleries. The tower, having closely adjoined houses at its west end, was therefore little seen, only the upper part (much modernised) being discernible. Formerly, the entire width of the church was spanned by a queen-post roof, ceiled in lath and plaster under the tie-beam, and quite flat. A considerable portion of this roof has been preserved,—a panelled wood ceiling made under the collars, and ornamental features introduced in the towers. The width of the church has been subdivided, and aisles formed by lofty shafts of pitch pine. The flat ceiling over the aisles is retained for the present (it is intended to panel it), while an arcade over the main nave arches has been constructed, opening out over the aisle ceilings, thus giving somewhat the effect of a triforium. As no constructional chancel previously existed (but only a mere recess at the east end), the choir has been flanked by perforated wood screens. The ground floor of the tower was formerly blocked out by a wall from the rest of the church, and the tower arch completely concealed; it is now opened out and otherwise improved. The whole of the high pewing has been replaced by low open benches of stained deal, those of the choir being of richer design, and of wainscot. Tiles form the paving. The pulpit is of Painswick stone, in open arcade work, the shafts being of Forest of Dean stone. The church is warmed by one of Porritt's underground stoves. The old organ was rebuilt by Messrs. Gray & Davison. The wide windows have been subdivided into two lights, with circles over, and glazed with cathedral glass contrasted with clear white glass, except two of them, which have been filled with painted glass of Mr. Pepper's design. The exterior of the church, with the exception of the repairs to the tower, has undergone little alteration, as, except by complete rebuilding, its ugliness could not be relieved.

Mr. Ferrey, F.S.A., and Mr. Edmund B. Ferrey, were the architects; and Mr. T. Nye, of Ealing, was the builder. The total cost will amount to about 2,800*l*. Colonel and Mrs. Clitherow, of Boston House, Brentford, have been among the most liberal contributors to these works.

Society of Engineers.—On Monday, the 3rd of May, a paper will be read on "The Use of Paint as an Engineering Material," by Mr. Ernest Spon.

THE NEW ROYAL AQUARIUM AND SUMMER AND WINTER GARDEN, WESTMINSTER.

THE building now in course of erection in Westminster will afford Londoners a chance of obtaining for themselves a cheerful and pleasant resort in the cold winter months and in the rainy season, without the expense and inconvenience of a railway journey, as is necessitated by a visit to the Crystal Palace. There can be but little doubt that a winter garden, in a climate such as ours, is equally desirable as a summer one. The Royal Aquarium combines both. The committee, whilst keeping in view, as they promise, the advancement of science, art, and literature, in all its branches, have endeavoured to provide for the healthy amusement of the masses as well.

From the prospectus we gather that the Aquarium will be a special feature and novelty, being the first of its kind established in London, and in connexion therewith it appears there are to be rooms for private concerts and popular lectures relating to science and art, and other objects of public interest. We also learn that the committee have made arangements for some of the most exclusives *fêtes* of the season,—flower-shows, and so on. The ceremony of fixing the corner-stone will shortly take place. The list of the council of fellows includes the names of the Prince of Leiningen, Prince Soltykoff, Lords Clarendon, Mayo, Ranfurly, Talbot de Malahide, March, Clonmel, Dupplin, De Lisle, Carington, and Kilmarnock; the Barons Ferdinand and Alfred de Rothschild, Sir Jules Benedict, Sir Charles Legard, Sir Frederick Johnstone, Lord Londesborough; Messrs. Santley, Irving, Sullivan, Colonel Farquharson (Invercauld), Major-General F. C. Cotton, C.S.I.

The new buildings, of which we give an illustration in our present number, are being erected by Messrs. Lucas, the contractors, and are situated between Broad Sanctuary, Westminster, and St. James's Park Station, having a frontage of nearly 600 ft. in Tothill-street. The materials of the principal fronts are red (Farnham) bricks, with Portland and Bath stone dressings. The front building, and being that situated at the east end of the land, is 140 ft. long by 85 ft. wide, having towers at the north-east and south-east corners. The top stage will be open, and divided by Aberdeen red granite columns. The angle-piers, caps to columns, voussoirs, dressings, and spandrels will be executed in Portland stone. The roofs of the towers, in two stages, will be covered with fancy cut zinc tiles, completed with ornamental hips, and surmounted by vane-rods.

Round the walls of this "Front Hall" will be placed the shallow (or table) marine and fresh water-tanks, which will be about twenty in number, the longest being 50 ft. The flooring will be of encaustic tiles laid to a pattern. The hall is divided into bays or compartments by cast-iron columns and lattice girders, the outer bay all round being floored over for a gallery in which will be dining-rooms arranged so as to be suitable for large or small parties; adjoining these will be kitchens, with a lift, service and still-room.

Through wide openings both on the ground and gallery floors at the west end of the front hall, the promenade or winter and summer garden is reached (with external entrances from Tothill-street). This, the main feature of the whole, will be about 350 ft. long by 160 ft. wide, the central portion or avenue (the roof over it being semicircular in form and of iron), although at first sight resembling in character the roof of the Crystal Palace, will be totally different in design, and glazed on the principle of Rendle's patent, of which we may remark that by the adoption of this invention all woodwork is covered by the metal and glass, that no putty is used in glazing, that bent glass is entirely dispensed with, and consequently it is more economical than the old system. The width of the main avenue or promenade is 80 ft., or 8 ft. wider than that of the Crystal Palace. The height of the gallery from the floor of the promenade will be 16 ft., and from this level to the springing of the vaulted roof is about 16 ft. The whole height from floor level to top of roof is 72 ft. The roof is entirely of wrought-iron, the principals (of which there are four pairs in the length), each 20 ft. wide and 6 ft. 6 in. deep, are formed of double lattice work. The purlins to principles are 5 ft. deep, between these principles and varying in length from 40 ft. to 60 ft. The purlins (of lattice pattern) are 2 ft. 6 in. deep and 15 ft. apart, on these the intermediates rest. These are constructed of T irons and cross lattice bars. The capitals of the cast-iron columns are enriched; shells, sea-horses, &c., being introduced. The gable-ends will be entirely of iron and glass.

Galleries will extend all round the building, and will be 40 ft. in width, a large portion at the east end and adjoining the dining-rooms being devoted to refreshments. A picture and fine-art gallery will be opened here, and to this department offers on loan from influential quarters, it is stated, have already been made.

In this portion of the buildings, the aquarium will be a special feature under the galleries. Show tanks, varying in size, are being constructed on each side of the promenade. On the south side there will be thirteen marine tanks occupying the whole length of the building, excepting so much as is appropriated to the entrances. On the north side there will be five marine and fresh-water tanks, the largest being 60 ft. by 20 ft., with a sight depth of 5 ft. The superficial surface of glass to these tanks will be 1,834 ft., and the water contents in them about 140,000 gallons.

On the north side in the centre there is to be a large orchestra 60 ft. by 40 ft., and so arranged that extra depth can be obtained at any time, if required. Attached to and connected with it are retiring-rooms, dressing-rooms, green-room, band and chorus room, &c. On the same side and to the west will be found a reading-room, 48 ft. by 45 ft., writing-room, library, &c. At the north side of the reading-room is arranged a large building, roofed over with iron and glass, in which will be placed the reserve tanks.

In order to supply water (both salt and fresh), to the show and reserve tanks, a huge reservoir is being constructed under the promenade, the length of which will be 260 ft. by a width of 53 ft., and will be capable of containing over 600,000 gallons, one-fourth part of which will be fresh water. We shall give a plan on another occasion.

There will also be, in various parts of the building, the requisite cloak-rooms, retiring and dressing rooms, telegraph office, &c.

At the west end of the site is placed a concert-hall, 106 ft. long by a width of 66 ft. The roof will be of iron, the ceiling being boarded, panelled, and moulded, with ventilating flowers in the centre. An enriched cove is carried all round at the springing level of the roof, into which the circular moulded hoods of the windows will mitre. The proscenium, enrichments in coves, and the gallery fronts, will be done in Jackson & Son's composition. The stage will have a depth of 29 ft. There will also be two galleries, in which, together with the ground-floor space, there will be accommodation for about 2,000 persons. This hall will be so arranged that artistic, literary, and private societies can engage it for the purposes of meetings, *conversazioni*, and so on; and here again are provided a band-room, room for the chorus, dressing and retiring rooms.

In addition to the above there are a board-room, secretary's room, clerks' offices, waiting-room, &c. It is confidently anticipated by the directors that the enterprise, favoured as it is by its central and unrivalled position in the metropolis, will prove the medium of a safe and profitable investment. The society will always possess a substantial security in the freehold land, a property that will materially increase in value every year.

The building has been designed by, and is being erected under, the superintendence of Mr. Bedborough, architect; and we understand that Messrs. Lucas Brothers have undertaken to hand over the building before Christmas.

We should add that the machinery for the continuous circulating system for the tanks is being prepared, and will be erected by Messrs. Leete, Edwards, & Norman, engineers, of the Euston-road.

The Water-Mains of the London Companies.—The monthly report of Major Bolton states that the number of miles of streets which contain water-mains constantly charged, and upon which hydrants could at once be fixed, in each district, are as follows:—Kent, 80 miles; New River, 168; East London, 70; Southwark and Vauxhall, 100; West Middlesex, 67; Grand Junction, 41½; Lambeth, 90; Chelsea, 50,—making a total of 665½ miles. The water companies are ready to affix hydrants thereon when required by the authorities.

THE NEW ROYAL AQUARIUM AND SUMMER AND WINTER GARDEN, WESTMINSTER.—Mr. A. Bedborough Architect.

A THEATRE TO THE MEMORY OF SHAKSPEARE.

If a theatre is to be erected to the memory of Shakspeare, wherever the site may be, the character of it should be distinct from that generally adopted in such structures. A building such as Drury Lane, or Covent Garden, or any other theatre in the United Kingdom, would be liable to become shabby in a few years, and at no very distant time would begin to exhibit symptoms of actual decay. The materials of which our theatres are generally constructed are also of such an inflammable character, that an accidental fire never fails to make a clean sweep of the entire structure. A building, destined to be both a theatre and a perennial monument, should be constructed, as all important national monuments are, of such materials as are not liable to decay, nor to be destroyed by fire. It should be a structure of such monumental fashion as the noble Mausoleum on the great Roman Way, destined to perpetuate the memory of Cecilia Metella; and should be executed in a style of masonry as artistically perfect; and with material as enduring as that of snowy marble which is still as perfect and beautiful in many parts as when first erected, and but for violence would have been still entire, after more than 1,800 years. A monumental theatre dedicated to Shakspeare should be as imperishable as that Roman monument. Both within and without all should be of such enduring materials as are fitted to endure for centuries. Granite, marble, bronze, should form the staples of the entire erection in every part. An elevation of imposing aspect and beautifully-varied effect might be designed, in which the grandly-harmonious tones of rose and of gray granite might be massed with strikingly-fine effect; especially if varied by columns of white Sicilian marble, which has been found to endure our winters quite as well as polished granite; while great vigour of line might be effected by occasional inlays of some black material equally imperishable, either natural or artificial. The masonry of this elevation should be as perfect as that of the Roman monument above alluded to, in which the joints are all but invisible. With such materials, with joints impervious to the infiltration of moisture, it would endure the worst assaults of our treacherous climate for centuries on centuries. As regards the size of the structure, it should be moderate, and need not be made to seat more than 500 spectators. The form of the central portion might well be circular, and roofed with a flattened dome, with an opening in the centre, like that of the Pantheon. The flat dome should be entirely composed of blocks of Sicilian marble, smooth and polished externally, and within either soffited or fluted towards the centre, and so forming the most elegant of ceilings, while it would be indestructible as well as beautiful. The form of this circular building might be accentuated and varied externally by four projections, producing the general figure of a Greek cross. The central portion or core of the building might rise considerably above the four projections, and be crownedby a noble entablature, the frieze of which should consist of a deep band of Sicilian marble, highly sculptured with a procession of Shakspearian characters; while the open centre of the domed roof might be canopied with a perforated turret or lantern, of light and elegant design, in which both Gothic and Classical details should be systematically avoided. The exquisitely symmetrical churches of the Romanesque and Byzantine churches, in the manner developed in Greece and Asia Minor, might afford valuable hints as to style; the more so as the treatment of these exquisite specimens of architectural art had not culminated into any fixed style, the kind of art of which they are examples having been as yet in a state of development when it was superseded, so that it does not present any systematic and fixed forms of details to tempt a slavish imitation, but only fine generalised features, highly valuable as hints for such a structure as the one under description. All the external decorations of such a monument should be large and decisive in character, and of a nature not to injure by time. Yet this need not preclude great richness and variety. In the front of deep niches, deep enough to form a dark background, statues of Sicilian marble might be placed, of dimensions that should appear somewhat more than life-size, even at some distance; and such objects, so placed, would have a grand and sober effect. The figures might be those of Shakspeare's best-known contemporaries, such as Greene, Marlow, Ben Jonson, Spencer, Sir Philip Sydney, Chapman, and others. His own statue, of colossal size, should appear under a canopy of granite, immediately above the great entrance portal, which should be spacious and magnificent, and the granite canopy over the statue should be elaborately wrought in open work, though massive. The great portal itself should be flanked by colossal figures of Tragedy and Comedy, wrought with Buonarottian grandeur, perhaps in the fashion of Caryatides.

Looking far back for examples of similar works, the noble Carian monument of Mausolus, with its gigantic portrait statues, and the magnificent quadriga, which, but for barbarian violence or terrestrial convulsions, might evidently have been as perfect to-day as it was the hour it was completed by the chisels of those inspired artists of Greece who conceived the general design, and wrought it out with such magnificence; and, seeing how perfect the fragments of the horses are which now lie in the British Museum, one is tempted to fancy that the statue of our great poet might stand, crowned by Fame, in a grand triumphal car drawn by four horses, on the roof of the portico, which should form, as it were, its pedestal. The car should be in the position of coming towards the spectator as he approaches the building, and should be made one of the most magnificent works ever wrought by British chisel. The projection of the part of the building devoted to the grand entrance being made to form the pedestal of such a composition without losing its harmony with the other three projections, would become a fine and characteristic feature in the building. The large sculptured mouldings of the arched portal should be of red, white, and grey material, with one or two narrow hollows of black, to give vigour. The fitting characteristics of the vestibules and entrance-hall would take too long to describe, as the character of the interim has not yet been hinted at, and must now be briefly described:—The floor might be of red and grey granite, in some simple pattern; carpets being laid down, at times of periodical performances, in the general path round the auditorium, and also in front of each seat. The seats of the pit should be of red polished granite, with backs and arms; the arms next the central passage being enriched with grandly carved bosses; and, at the time of performances, cushions should be provided (kept in a permanent wardrobe) for the seats and backs of these granite chairs. The front of the lower tier of boxes should be red granite, with massive mouldings, one or two of the smaller lines of which might be gilt, in such positions where the wear and tear of rubbing could not take effect. Along the front of this massive marble "balcony" should be white marble panels, enclosed in very massive mouldings, in which should be inlaid in mosaic, leaving a white margin, scenes from some of the best known of Shakspeare's plays. These should be of highly-finished style, and correctly drawn, eschewing Mediæval monstrosity. The second tier of "boxes" should be also of red granite, but with mouldings of gray to lighten it, and to enclose panels of white marble, enriched with scenes from the plays in high relief, of elaborate character, in order to contrast with the stern, broad simplicity of the general mouldings. The next tier should be of white marble, with mouldings of grey granite, the white marble having an inlaid ornament. The vaulted roof or ceiling mould, as described, should be of white marble, perhaps enriched with mosaics of delicate and highly finished design, in which, of course, all attempts at imitating the grotesqueness of Mediæval mosaics should be strictly avoided. It is scarcely necessary to add, after what has been said of the permanence and indestructibility of materials employed, that the floors of the boxes and all the corridors, and even the stage,—indeed, every detail of the main structure,—should be of granite. In point of durability of material, the great Roman amphitheatres should be taken as a general model, such as the Colosseum and the Amphitheatres at Verona and other places, the Stratford Memorial Theatre necessarily differing from them in being a covered instead of an open arena. The aperture in the centre of the roof might be closed when required by means of a slab of glass, as thick and as strong as marble, working on bronze pivots, like the massive marble doors of the Macedonian tomb now in the Louvre. Thus constructed, a theatre-monument might remain sound and perfect after the wear and tear of time and tempest for 2,000 years. The style of all the details should be, as far as possible, characteristic of this age, avoiding any imitation of Gothic forms and details, or of Greek or Roman detail of any well-known kind. In a monument to the memory of Shakspeare, whose style was his own, and which he stamped indelibly upon the age in which he lived, there must be no imitations, no slavish reproductions,—the work erected in the nineteenth century to his memory must be as pure an outcome of the highest civilization of this age as his genius was of that of the sixteenth. He left the styles of his predecessors alone,—both the form and spirit of his productions are his own, and if he took a story or legend from a chronicler, or a writer of romance, he cast aside the style and manner of the author whose work he appropriated, moulding and modelling it afresh after his own immortal fashion, and so deeply impressed the seal of his genius upon it, as to mark it as his own for ever.

The time for erecting some grand national monument is surely arrived at last. There will come a time when memorials of our great Shakspeare will form the leading embellishments, not only in the metropolis, but in all our great towns, but at present a solitary, and yet worthy monument, in the form of such a theatre as that described, will not form a bad beginning, and the sooner that beginning takes place the better. It is always with something nearly akin to a sense of shame that we at present acknowledge our shortcomings in regard to public memorials of our greatest men in the form of enduring monuments of marble, bronze, or granite; more especially when we compare our almost absolute neglect with what Continental nations have done in honour of those who have shed the glory of their genius upon a national history. The memory of Molière, and other great French dramatists, has been honoured by many monuments of comparatively indestructible character, and in the highest school of French art, which, in their elaborate richness, form such magnificent public ornaments to Paris and other cities in various parts of France, as our artistic neighbours are naturally and justly proud of. We, on the other hand, have no worthy monument to boast of,—certainly none erected with such lavish display of art,—to our far greater Shakspeare, whose vast superiority is acknowledged by all the world, and whose works are for all time. Strasbourg, Mayence, Frankfort, have vied with each other in glorifying the memory of Gutenberg, the inventor of that art,—printing with movable types,—which has given a more powerful impetus to the general progress of civilisation than any other of the fine or mechanical arts, and they have honoured themselves in honouring their great countryman; while Haarlem, believing that one of her own citizens, Koster, actually preceded Gutenberg in establishing the first rudiments of that art, has erected a colossal statue of noble design in his memory, on the principal open space in the city, on one side of which was situated the house in which he lived, and in which he is supposed to have invented movable types for the printing of his second edition of "The Speculum Humani Salvationis," before Gutenberg had brought his nearly simultaneous invention into a practical form. But the examples of these Continental cities have incited us to honour in a similar manner our own William Caxton,—our enterprising Englishman who first established the new art in our country.

THE "QUEEN ANNE" REVIVAL IN IRELAND.

ARCHITECTURAL ASSOCIATION OF IRELAND.

At the ordinary general meeting held on Thursday evening, April 22nd (the president, Mr. W. M. Mitchell, in the chair), a discussion on "The Queen Anne Revival" was opened by Mr. John L. Robinson (hon. sec.), in the following brief paper:—Since the days when Stuart & Revett measured and published drawings of the remains of ancient Greek temples, architecture in this country has become as changeable as the winds and as extravagant in some respects as ladies' fashions. Before considering the latest craze, let us pause and recall the different styles that have attracted the attention of architects, for since the days of Elizabeth our art has been endued with no healthy vitality, just owing its existence to the fleeting fancy of the hour. First we had Stuart & Revett, and consequently a mania in the direction of Greece. Greek temples and Choraic monuments studded the land until

the fashion changed to Roman Classic; then Sir Charles Barry introduced Italian in his Travellers' Club, and paralysed the architectural profession by his daring to design a club-house without an order of columns tacked to the outside walls. Architects in those days could not understand how a window could be made an architectural feature without columns, so this building was bepraised, measured, and published, and helped to make a man of Sir Charles. Such success begat imitators, so that we were treated to Italian Pallazzi in all shapes and forms for some years. Then Pugin came on the scene, and succeeded after a great struggle in turning the fashion to sixteenth century or Tudor Gothic. Then we had a trial of Decorated, Norman and Thirteenth-Century Gothic. After a due course of these, Mr. Nesfield and Mr. Shaw published their well-known Continental sketch-books, and straightway Continental Gothic became fashionable. Mr. Ruskin also influenced some men to try Venetian. Two or three years ago we had a Japanese craze, then half-timber houses, and now every one is going mad about the so-called Queen Anne revival, or Free Classic. So that I should not be in the least astonished if Mr. Fergusson's exertions would at last succeed in converting us to the beauties of the Indian styles; and Egyptian and Chinese remain to be tried when others fail. The Queen Anne revival, as it is called, arises from the humiliating fact that a few men lead the profession in England, all others following at a respectful distance; and no sooner has one of those leaders adopted any peculiarity of style than he has scores of followers. Hence, when Mr. Norman Shaw (who has distinguished himself by some beautiful Gothic designs) designed the New Zealand Chambers in London,—a building with which I have no doubt you are well acquainted,—several of the smaller fry followed his example, and designed in Queen Anne with the same facility as they had heretofore done in Gothic. The principal merits claimed for the style by its admirers are,—that by its means architects are enabled to throw some art and picturesqueness into their works at a moderate expense, and that truthfulness of construction can be obtained in it as in Gothic,—an argument scarcely tenable in the face of mock windows and shaped gables. The London School Board has served to give this movement an impetus it would never otherwise have obtained, and the city is now being covered with Queen Anne schools. In the course of my rambles through Dublin, I have come across some curious old houses, whether of the Queen Anne period I cannot say. I am more inclined to assign them to the reign of George I. I have taken a few photographs of them that will give you some idea of how picturesque a street of such houses would be. The bricks in the strings and cornices are richly moulded. The gables are curved, and topped with a moulded brick pediment. The interiors of those houses were often elaborately finished, the walls of the halls and rooms being sheeted with oak wainscot, and the staircases have carved and twisted balusters. Almost all the chimneypieces have disappeared, and the houses are let in tenements, yet withal those houses have an air of dignity and comfort, and recall the days when the weavers of the liberty were a wealthy and important body, and many a merchant prince resided in Blackpitts or The Coombe. I had some time ago, when taking down several of those houses, an opportunity of studying their construction. The walls were only 9 in. thick, and the fireplaces in corners of the rooms. The roofs had gables to the four walls, hence all the thrust was thrown on the four corners by means of the valley pieces. This mode of construction was adopted to obtain as much space as possible in the roof, and saved the expense of gutters. The window-frames were not revealed, the outside casing being exposed to view. The sash-bars were very strong, and the panes small. I am of opinion that where we cannot indulge our Gothic proclivities, such as in town houses, we might learn a lesson from the humble houses in The Liberties of Dublin.

Mr. J. J. O'Callaghan said that the "Queen Anne" had all the faults of Classic, and its merits were derived from Gothic, and that Mr. Shaw threw the spirit of Gothic into his Queen Anne buildings. The "New Zealand Chambers" were Gothic in spirit. He did not think this fashion would last long. He thought that architects should adopt either round arches or pointed, and treat them truthfully. This constant craving for something new is deceptive, and will lead us into difficulties. There are now things done every day for which no precedent can be found in ancient work. He did not care what style a man adopted; so long as he worked truthfully in it, he must produce a beautiful building.

Mr. R. S. Swan said that a craving after novelty is seen in London, which is studded with the ugliest modern buildings in the world, and that the Queen Anne style is a mere passing fancy, merely attractive from its novelty.

The President said that some four years ago, when in London, he saw some designs at the Royal Academy Exhibition in this style, and was much surprised. Since then the movement had spread considerably. Any leader will have followers who will produce a number of inferior designs. He thought that, as it so nearly approaches our vernacular architecture, and has some art to recommend it, it might be adopted where clients will not consent to Mediævalise their houses; but where Gothic architects are left free to follow their fancy, and adopt Queen Anne, it can be only looked on as a retrograde movement. He also thought that the expense of specially-moulded bricks would be so great in Dublin as to prohibit any elaborate Queen Anne designs.

COLOUR AND DECORATION.

ARTISANS' INSTITUTE.

MR. J. G. CRACE lectured, on Saturday evening last, the 24th ult., at the Artisans' Institute, Castle-street, St. Martin's-lane, on "Colour and Decoration." One of the great questions of the day, he said, was how to educate, how to train the art-workman, so that each might take such a place in the trade or handicraft that he was to follow, as workmen of the same class in a foreign country. Now, what was decoration? It was the art of adorning the objects that they used and the houses they occupied. To accomplish this successfully the art should ever be accompanied by its handmaidens, knowledge and taste,—the knowledge of the principles which should guide them in the application of art to industry; and taste, that cultivation of the mind which enabled them to appreciate true beauty in the elements of form and colour. In the study of any art it was necessary to understand thoroughly the rudiments of first principles of that art, and to teach these was one of the great objects of technical education. To decorate an object appropriately, it was necessary to consider the material of which it was made. In weaving matting, or articles of very coarse texture, scrolls of any intricacy would be out of place, and the process necessitated simple forms appropriate to the fabric. In Turkey carpets very beautiful forms had been invented, as it were, by the very difficulties of the coarseness of the stitch. The true genius of an artist designer was displayed in contriving ornamental designs congenial to the fabric, suitability being an important element in decoration. When working in a finer material, in silk and wool, for instance, good, well-defined ornamental forms were desirable, and in richer fabrics, such as satin damask, the lustre and beauty of the material had to be displayed to the best advantage, by ornament with good breadth of space, so as to show off the rich lustre of the stain in contrast with the quieter tone of the silk. There were certain fabrics which owed all their value to the industrial art bestowed upon them, such, for instance, as pottery. They had all, doubtless seen the Etruscan vases in the British Museum, which were truly triumphs of skilled art, both for the elegant proportion of their forms and the beauty of the ornament and figures that decorated them. The Majolica ware, so esteemed at the present day, was made of coarse clay, and owed its value to the artistic work displayed upon it. How beautiful were some of the productions of the Venetian glass-blowers, the coloured spirals so delicately and elaborately wrought, and yet the operation in the hands of the skilled workman seemed wonderfully simple. Take a piece of furniture. The wood it was made of might be ordinary enough, but the mind of the designer and the skill of the workman were to make it "a thing of beauty." From the beginning, however, they must work on certain principles. Let the construction be evident, and if carving or inlay ornament be introduced, let it form a feature with the construction, and not overlay or disguise it. A proper disposition of well-proportioned forms was the first consideration. The perfection of art-manufacture consisted in combining with the greatest possible effect the useful with the pleasing; and the execution of this could generally be most successfully carried out by adopting the simplest forms. With regard to colour decoration, as applied to the adornment of their dwellings, it should be the ambition of every man to have his home clean, comfortable, and tasteful; and a knowledge of the rudiments of the science of colour,—for it was a science,—might be useful to every man. Colour gave life to form; its variations, properly harmonised, delighted the eye, and had a powerful influence on the mind, when treated with that skill which a careful and well-trained study of the art would enable them to exercise. To study properly the subject of colour, they must begin with the consideration of light. When the rays of white light were intercepted or dispersed, colour was produced. Familiar to all of them was the glorious rainbow,—

> "Born of the shower, and coloured by the sun;"

and, as Scott had told them,—

> "What skilful limner e'er could choose
> To paint the rainbow's various hues,
> Unless to mortal were it given,
> To dip his brush in dyes of heaven?"

The rays of light emitted through a prism gave out a series of brilliant colours, known as the solar spectrum; and the relations of the colours thus produced formed the fundamental principles which regulated the science of colour. After briefly explaining the theory of the law of contrast in colouring, Mr. Crace went on to consider the subject of harmony,—that was, he said, how to bring together various colours in such proportions as to produce an agreeable effect. Bright red and bright green, bright blue and bright orange, could not be used together in masses without much modification. He spoke the more earnestly because he believed that it was a popular delusion that these contrasts were quite correct. To combine various modulations of colour, so that they might mingle together and form a harmonious whole, demanded careful study, practice, and taste. It was delightful to find how charmingly the laws of harmony were expressed in the colouring of flowers. Whether it be the rose, with its soft gradations of red; the iris, with its rich modulations of violet; the fuschia, with its scarlet petals surrounding its purple corolla; the red passion-flower, with its purple and white fringe and blue stamen; the purple pansy, with its bright centre of yellow,—all so beautifully modulated by tender streaks of complementary colours, and all having leaves of which the tone was that best suited to the flowers. However violent might be the contrasts of the colouring, there were always certain combinations which perfected the harmony and delighted the eye. The hand of Nature never erred. He could not too strongly urge upon those who sought to improve themselves in decorative art, to study carefully from natural flowers and foliage, both for gracefulness of form and for harmony and richness of colour. In considering the question of harmony of colour, as applied to decoration, the tertiaries became essentially valuable. They had the same relation to the secondary colours as to shade that the primary colours had to light. Citrine was to dark violet as yellow was to light violet; russet was to dark green as red was to light green; olive was to dark orange as blue was to bright orange. Thus, each of the secondaries was neutralised by that tertiary in which the remaining primary predominated. By a proportionate adjustment of the primaries with the secondaries, or tertiaries, harmony of colour was produced. In decoration, it might be laid down as a principle that one colour should dominate; that this dominant should be a primary or secondary; and that the other colours must be subsidiary to it. In the majority of cases, the most perfect and beautiful harmony was produced by employing neutralised hues of colour for the larger masses, and then giving freshness, cheerfulness, and beauty to the whole by the introduction in small masses of the primary or secondary colours that might form the proper equivalents to the prevailing colour. It should always be remembered that the eye was never satisfied with any arrangement of colour unless all the primaries were present in some shape or other. In carrying out decorations, it would be found that all colours had two kinds of harmony—that of analogy or sympathy, and that of contrast. For instance, they would suppose the walls of a room to be of a soft green colour, and that curtains were required. Two colours were open to them: on the one hand, a rich yellow

brown, which was the softer or more sympathetic harmony; on the other hand, a warm morone, which was the harmony of contrast. The principal colourings of a room being decided, the decorator would have to consider how best to relieve with colour his cornice and frieze, the ceilings, and the woodwork. The cornice was a very important feature in a room; it acted as a kind of frame to the walls, between these and the ceiling; but it should always be borne in mind that, except in peculiar cases, it should be made to belong to the walls; and with that view, particular care must be taken in the colouring of it, either by a soft contrast to the wall colour, or by a colour referring to the curtains or other harmonising hue. There were three masses of colour to be considered in living-rooms,—the walls, the curtains, and the carpets; but it was by no means necessary that these should be all of different colours. Two of them might accord, either the walls and curtains, or the curtains and carpet. If the walls of a room were highly ornamented in colour, either by arabesque painting or otherwise, it was desirable that the curtains be quiet in tone, and not of contrasted colours; also, that the carpet preserved a subdued effect that did not interfere with the decoration of the walls. On the other hand, if the walls of a room were of a quiet tone, or were white and ornamented with gilding, various colours in ornament or flowers might be introduced with propriety in the carpet. When rooms were papered or painted in tints of colour, the combination necessary to carry out a pleasing effect was sufficiently simple and easy; but even in these great care should be taken to have those tints of a soft, agreeable tone. There were greens and greens, buffs and buffs, and greys and greys, in the one case as ugly, raw, discordant, offensive, and displeasing, as in the other they might be soft, harmonious, agreeable, and refreshing to the sight. What could be more incompatible than a crude emerald green? Soften it, however, with a little sienna, or other moderating colour, and make it suitable in depth of tone to the size of the room, and their skill and taste would make it as agreeable as it would be otherwise repulsive. These tinted colours might be made considerably more effective by a harmonious combination with a contrasting tone of colour in the stiles or margins. In the woodwork of their rooms it seemed to be too generally considered that it must be either painted white, or grained in imitation of some wood. Now, he did not prescribe graining; on the contrary, he liked it occasionally; but he thought it was used far too frequently. Why not employ a good brown, or morone, or black, well relieved with light-coloured lines, taking care to face up the work to a very smooth surface, and to varnish it? Above all, however, he liked the real wood, even if it be plain deal, or pitch pine, for this, if well finished by the joiner, and kept clean, would, when varnished, have a very handsome effect, and could be readily ornamented to any degree by painting dark lines and ornament as if inlaid upon it. The wear of this kind of work was far beyond any painting. Again, on walls of staircases or entrance vestibules, or dados of rooms, imitations of marbles were often painted, and very beautifully painted too, for many English artists excelled in this kind of work; but these imitations were adopted not always because they were appropriate to the place, or particularly required, but because being varnished they wore well, and nothing else was suggested. He thought, however, that in a moderately-sized house, where quiet taste was appreciated, stencilling in geometric patterns in two shades of one colour was preferable to marbling, which, if done in an inferior manner, was a most unsightly sham. In determining the colours for rooms regard should be had to their aspect, giving cool and refreshing shades to the south, and warm comfortable colours to the north. Then, also, pictures required particular attention. If there were many in the room, and they were truly works of art, the colour of the walls must be subservient to them. If the pictures were not very large, and the colouring of them not dark or heavy, sage green was a good tone. In this case the windows and doors might be cinnamon colour, if not real wood; the cornice of the room might be vellum colour, relieved with the cinnamon and dull violet in suitable parts of it; the ceiling might be pale grey. If, however, the room be large, and the pictures boldly painted, red was an excellent colour for the walls; it gave freshness and vigour to the paintings; and if the room was lighted from above, it rendered it bright and cheerful, not undesirable qualities where there was no external prospect. The woodwork, if already painted, might be black or vellum colour, properly relieved on the mouldings. The cornice and ceiling of the room should be carefully toned, so that nothing be too obtrusive; but no special colours could be proposed, as they would depend on the design of the architecture. Only he would warn his audience not to follow the advice of a clever writer in a popular magazine, saying that "a red room with a black ceiling, starred with dull sea-green or yellow, was very bright and good." Mr. Crace doubted it. Considerable discussion had occurred in late years as to the proper background for statues,—whether it should be a quiet neutral tone of grey, or a more decided colour, such as morone red. He was strongly in favour of the decided colour. They could not lay down precise laws as to what colours should be brought together; careful modulation would enable an experienced artist to bring *any* colours together. Discord could always be made to modulate if they but knew how to do it. Hitherto he had been considering the principles of contrast and harmony, or their application to simple forms under ordinary circumstances; but in churches, large halls, or public buildings of importance, it was necessary to consider very carefully the peculiar circumstances of each of them before designing the decorations or arranging the colours. He was not surprised at architects dreading the indiscriminate use of colour in a building on which they had bestowed so much careful study and labour. Judicious and well-designed arrangements of colour should add to the architectural effect. By these the principal constructive features of a building should be emphasised or clearly expressed; and the whole, avoiding confusion, should present a combination and symmetry of form and harmony of colour. As for himself, he abominated whitewash. He saw not the beauty of interior stone walls unrelieved, nor did he see the impropriety of covering these real stone walls with glowing colour. With regard to colour, as employed by the ancients, in Egypt examples of decorative colouring done nearly three thousand years ago were still in fine preservation, and excited the warmest admiration. The interior walls of the temples were often covered with historical representations brought out in colour; the main architectural features were also painted. In the British Museum and at the Crystal Palace might be seen reproductions of some of these well worthy of their attention. The Greeks, he had no doubt, carried the art of coloured decoration to the same perfection as the other arts in which they so excelled. Their descendants showed by their decorative works, executed in a provincial Roman city 1,800 years ago, how beautifully the art was still practised in their day. Mr. Crace said their descendants, because it was generally understood that the art works of Rome were carried on by Etruscans and Greeks. The Romans were soldiers. The city of Pompeii, submerged, almost forgotten, during 1,800 years, and now brought to light again, showed all the details of Roman life as it existed at that distant period. The walls of the houses and public buildings, though roofless, were still glowing with colours fresh as the day on which the awful calamity overtook the city. It was, indeed, a mine of wealth to the art student. Here he would find wonderful combinations of colour, and the utmost elegance, fancy, and beauty of ornament. He had endeavoured, Mr. Crace went on to say, to explain to them the principles which should guide them in the employment of colour. The subject was so various and so extensive that it was impossible in a lecture to do more than point out some of the main features of the art. Much must always depend on the industry and intelligence of those who followed an art, and it was certain that those who would resolutely study to improve themselves would open a road to advancement which, followed with perseverance, steadiness, and sobriety, must lead to success. *Persevere* was the grand motto to be borne in mind in all struggles towards a certain goal. Work, steady work, was the element of success. Let every young man be encouraged to learn to draw, whatever the trade or occupation he might be likely to follow. It was sure to be a great amusement,—it must be of the utmost value to him in after-life. A carpenter who could make good working drawings was sure to advance himself before those who could not. One of the best sources of art education was to visit frequently the glorious works collected in the Kensington Museum. This museum was to the art-workman the most valuable and the most useful institution in the country; and the country owed a debt of gratitude to the man whose untiring energy, perseverance, and ability had enabled him, in spite of most stupid opposition, very niggardly support, and unjustifiable ridicule, to accumulate these interesting productions of the art-workmen of all countries and all times. Sir Henry Cole had done for the British workman a great service; for in this museum artisans might see, each in his own special handicraft, examples of what might be accomplished by skilled art-workmen. Let the art-student study the works carefully, then would he realise how art could ennoble even the most common objects, how the power of a true artist gave a charm to all that it was applied to, how art humanised, elevated, and purified the soul of those who would lend themselves to its influence, and how that influence would guide them in their labours, and help to lead them towards that excellence which it was to be hoped they eagerly desired to obtain.

Mr. Blyth proposed, Mr. Snell seconded, and the Rev. H. Solly supported, a vote of thanks to the lecturer, which was acknowledged.

THE DRAINAGE OF PORTSMOUTH.

A REMARKABLY flat district, and one to which on this account was given prominence in the report delivered to the local authorities by Mr. Lewis Angell, C.E., and then Borough Engineer, is not the most favourable for drainage operations. In support of this opinion the following remarks opened the subject, penned by Mr. Angell, when called upon to report thereon:—"The Borough of Portsmouth is most unfavourably situated for the application of a natural system of drainage, because *no part* is much above and a portion of it even below the range of ordinary Spring tides, while such variations of altitude as do occur, impede rather than assist the engineer in the determination of the direction and gradients of his main lines of sewers. The most densely populated part of the borough is only elevated about 12 ft. above the tidal range, while a large extent is by nature a marsh, varying from 2 ft. below to 5 ft. above high-water mark." This report was made in March, 1864. The extensive works which have been carried out and now thoroughly completed under the superintendence and direction of Mr. J. E. Greatorex, C.E., the present Borough Engineer, have fully borne out these original views of the scheme, and justifies the writer in affirming that no provincial district has offered so many obstacles and of so serious a nature as those presented in the course of this undertaking. Of course, the expense, too, has been considerable. The system consists of upper and lower levels. The first-named traverses Kingston, Fratton, Milton, and Landport; and the lower,—Portsea, Portsmouth *proper*, and Southsea. Commencing at the outer boundaries of these portions of the town of Portsmouth, and ultimately uniting near Southsea, and running together to the outfall at the West Wrimer sand at Langstone Harbour, great and unexpected difficulties were encountered there, owing to the tides, work having to be executed between them; and there, as throughout the entire work, running sands were met with. To commence with the low-level drainage, we may state that it travels in a south-westerly direction, skirting the coast, and passing through Portsea, receiving drainage from East Southsea, which used to run direct to the sea. The brick barrel sewer at this point is 1,300 yards in length, and 4 ft. 2 in. by 2 ft. 3 in. in diameter, and the inclination is 2 ft. per mile. It passes across Southsea Common in a north-westerly direction, and at the Pier Hotel receives the branch sewers from terraces. The size of the sewer is here 1,997 yards in length, and 4 ft. by 2 ft. 8 in. in diameter, and the inclination is 3 ft. per mile. Across the moats and fortifications, and over the site of Mill Dam, it enters Portsea, intersecting three branches, two terminating in Queen-street, and one in her Majesty's Dockyard. The length is here 1,550 yards, and the inclination is 5 ft. per mile. The high-level meanwhile traverses the whole of the Landport district, and joins the low-level, as before stated. At the junction the barrel is 4 ft. in diameter, while the inclination is 2½ ft. per mile. From this point, Grove-road South, crossing Elm-grove, is covered in a northerly direction, the length being 3,220 yards, and the barrel being 4 ft. by 2 ft. 8 in., and the inclination 3 ft. per mile. The Somers-road branch is 1,120 yards long, and 4 ft. by 2 ft. 8 in., and inclines 4 ft. per mile. The termination is in Kingston-

crescent, where the length is 423 yards, and the dimensions of the barrel are 3 ft. by 2 ft., and the inclination is 6 ft. per mile. There are about 8 miles of main and 54 miles of lateral and branch sewers, ranging from different sizes, and at different inclinations. The branch culverts are of brick, from 3 ft. by 2 ft. to 2 ft. by 1 ft. 4 in., with 12-in. and 15-in. pipes. The stratum pierced is a formation of gravel and brick earth, interspersed with veins of clay, and mixed up with shingle. At the outfall in Langstone Harbour, are two iron pipes, 1,200 ft. in length, and having a diameter of 3 ft., and an inclination of 6 ft. per mile, the combined levels being emptied by means of these into the sea, the sewage in them being pent up during the flow, and released during the ebb tides. We may state that the combined levels are carried from the junction near Eastney, to the junction with the iron pipes, by a 4 ft. double-barrel sewer. The pumping-station which lifts the low into the high level, is provided with a pair of 25-h.p. rotary beam-engines, which fulfil admirably the purpose for which they are intended. The urban portions of the borough are thoroughly sewered, every house being brought within the required distance, i.e., 100 ft. from each residence. Six or seven pumps are required to keep down the influx of water, and although the ground through which the drainage has to percolate is so flat, it amply effects the intention. Four hundred and fifty manholes, ventilating and flushing-shafts, receive continual and regular attention. The storm drainage it was found necessary to carry out, on account of the filling up of the Mill-dam Great Moat, which was the natural outfall of the storm water. This was effected at an additional cost of 6,000*l.*, the main-drainage reaching the large figure of 160,000*l.* The dimensions of storm drainage (in length about a mile and a quarter) are from 4 ft. 6 in. by 3 ft. to 3 ft. by 2 ft., and commencing at the monument near the Bedford Hotel, Landport, and terminating at the Camber Dock. Ten thousand houses are connected with the drainage generally. The whole of the works have been executed by Mr. J. E. Greatorex, C.E., assisted by an efficient staff. The contract for the main drainage was undertaken and completed by Mr. Frederick Furnis; the branch sewers by Messrs. Neave & Fry; the iron piping by Mr. George Jennings, of Poole, Dorset; the engine-houses, cottages, &c., by Messrs. W. R. & C. Light, of Portsmouth; and the engines and pumps by Mr. Joseph Clayton, of Preston.

THE CHAPEL AT CASTLE HOWARD.

RECENTLY the chapel attached to the palatial residence of the Earl of Carlisle, at Castle Howard, was opened for divine service. The event was celebrated with becoming rejoicing, marking, as it does, the consummation of an important work, the execution of which has involved lavish expenditure, and occupied nearly five years.

The chapel at Castle Howard is situated at the north-west extremity of the whole building, and its windows are passed on the right by all proceeding to the principal entrance to the castle. It is not the work of Sir John Vanbrugh, who first planned the castle, but with the remainder of the western wing, including the great gallery, it was designed by Sir George Robinson.

Before the recent works were undertaken, the chapel was simply a fine apartment, about 70 ft. by 24 ft., and 30 ft. high, on the same level as the state-rooms, and with a very handsome screen of Corinthian columns near each end.

The reredos is of marble and alabaster, there being first a plain alabaster wall, against which the altar stands, and above that a composition of five compartments having a pediment supported by pillars of red jasper. The panels are filled with rich red and green marbles, and the centre with a remarkably handsome piece of brownish marble, from the antique collection in the castle.

Above this, four large columns of red Devonshire marble support the main pediment, which reaches to the top of the chapel, and framed in this composition is a very beautiful picture, "The Man of Sorrows," designed and painted for this position. About a third of the main floor is set apart as a "chorus cantorum," and with the sacrarium and the outer compartment, or ante-chapel, is laid with handsome marble pavement, the design based on some examples of the ancient "opus Alexandrinum." The rest of the floor is laid with oak parquetry.

The lower parts of the great pillars (which are of white stone from Hildenly, on the estate) are green and gold, the pedestals being covered with slabs of alabaster.

The whole of the architectural works have been designed by and carried out under the personal direction of Mr. Robert J. Johnson, of Newcastle, architect; principally by the workmen of the estate, under the supervision of Mr. Ware, the clerk of the works. All the colour decoration and the altar-cloths, &c., have been designed by Mr. C. E. Kempe, of London, and executed by him and his assistants. The marble work has been done by Messrs. Field, Poole, & Son, of London, and the parquetry by Mr. Howard, of London. Mr. Councillor Rawling, of York, has executed all the plastering work. The brass work of the screen has been done by Messrs. Longden & Co., of Sheffield, from the architect's drawings. The altar cross has been made from the architect's drawings by the firm of Barkintin & Krall, of Regent-street, London.

The whole expense (which, of course, has been very considerable) has been defrayed by Lord Lanerton, except the font, which is a special gift.

THE GROWTH OF OUR TOWNS.

IN a pamphlet just now published, entitled "Sheffield as it was; Sheffield as it is; Sheffield as it should be," by an Old Grammar-school Boy of 1808,* the writer gives a very brief sketch of the progress of our leading provincial towns, since the end of the long war between this country and France, which will interest some of our readers:—

"Liverpool, the first in commercial importance, and the largest seaport next to the metropolis in size as in population, was not slow to move. Her first work was the Exchange Building and Mansion House or Town-hall, built during the first years of the present century. This was followed by the construction of St. George's Hall, containing the Assize Courts, Music-hall, and other large rooms for public purposes. Soon followed the erection of the Brown Free Library, the widening of Dale-street, Raneleigh-street, Church-street, Castle-street; and now there is in progress the opening of a fine thoroughfare, running from Castle-street through the centre of the town, to be named Victoria-street, whose buildings are to equal in style and magnitude anything in the provinces. The new Central Station and Lime-street new Station, to say nothing of the docks and quays, extending nearly five miles along the Mersey, place the town amongst the foremost in magnitude and wealth in the kingdom.

Manchester is not behind her contemporary in letting the world know that her wealth shall not be hidden under a bushel. Though from her geographical position her streets are tolerably level and straight, yet her buildings have been invariably low and mean, with uniform tastelessness, and, being built of brick, have a dingy appearance. Mosley-street was the only one of any decent architectural construction until the widening and rebuilding of Market-street, a narrow over-crowded lane, as its name implied, that would scarcely permit two wagons to pass into the area where the then newly-built Exchange stood. The increase of the town and its immensely-expanding trade soon brought into existence the present Market-street. That was quickly followed by the enlargement of the Infirmary, the filling up of the black-looking pool of water in the front, and the conversion of the ground into a fine area now occupied by a fountain, and the erection of an artistic statue with ornamental pedestals to the honoured memory of Sir Robert Peel.

Equally noteworthy are the Assize Courts in Salford, a splendid Gothic pile of buildings; the new Town-hall and its offices, which will, when finished, be a most elaborate and magnificent work, in Albert-square, where a statue in marble of the late Prince Consort is placed under a beautiful florid Gothic canopy that cost 1,000*l.*, presented by the late Mr. Thomas Gadsby, mayor of Manchester, in 1858. A new Exchange has been erected as the result of immensely increased business transactions arising during the past fifty years of increasing prosperity, which, in its magnitude of proportions, science in construction, and great utility, has excelled all its contemporaries, not excepting Liverpool, Bristol, Glasgow, or even London. Streets have been formed to meet the ever-increasing wants of the growing population. One now in construction, from the Cathedral-square, called Deansgate, bids fair to rival, by street architecture of the most elaborate and elegant character, anything now in existence. Not less striking the addition from thence to St. Ann's-square of two arcades, wide and spacious, where shops of a high class in jewelry attract the passenger. In fact, the city bids fair to compete, if not excel, all its provincial contemporaries in public buildings and streets, as it does in wealth, manufactures, and population, making it, as it deserves to be, the second town of the country.

Now let us turn to the town of Leeds, one of the principal towns of the West Riding of the county of York, that has also participated largely in the increase of wealth by its textile manufactures, as also by the manufacture of machinery and locomotive engines, incident to the development of the great portion of the trade that has within the last thirty years spread over the whole country, bringing the most remote places within twenty-four hours' distance of the metropolis, and which has every prospect of being the chief mode of conveyance throughout the world.

Leeds had an advantage over most other towns in having a good wide street from the bridge over the river Aire to Upperhead-row. The march of improvement has removed a large block of unsightly buildings, and opened up a considerable extension to the previous length of Briggate. In addition, the narrow, crowded street called Boar-lane has been entirely swept away, giving place to a wider and splendidly-constructed street, extending to the Central Railway Station, and leading to the new Town-hall, one of the most convenient and best improvements that could have been suggested. The Town-hall, containing the Assize Courts, is a noble building, which was constructed before the West Riding was separated into divisions. The erection of that structure secured to Leeds the advantage of being the Assize town of the West Riding, to the disparagement of the town of Sheffield, which was, and still is, destitute of any accommodation for that purpose,—a disadvantage which no doubt entailed considerable loss and expense upon the ratepayers.

The town of Bradford, eight miles from Leeds, thirty years ago had barely twenty thousand inhabitants, but owing to the adoption of the textile fabric of alpaca, kerseys, and stuff fabrics, has a colony of German and other foreign merchants, and by the increased trade has brought together a population exceeding one hundred thousand people, and transformed what was a small place into a town of stately architectural buildings, consisting of Town-hall, Exchange, and streets equal in architecture and not unlike the Belgian towns of Ghent, Bruges, &c.

The town of Halifax, only seven miles distant from Bradford, engaged in the same trade, has also been equally successful in her manufactures, but still more fortunate in having a man who to a princely fortune added a liberality not frequently met with. The late Sir Francis Crossley, gave a splendid park, close to the town, founded charities, built churches, and was chief mover, in conjunction with the Corporation, in opening up new streets and otherwise embellishing the town, making what was a narrow, crooked, stunted town, one which all who see it must admire. The style of its construction is only equalled by the beauty of the material of which it is built, being of stone from the neighbouring hills.

Huddersfield might be adduced as an instance in the same neighbourhood also partaking of the general success attending the textile and woollen fabrics. Nor has Huddersfield been backward in providing public halls and convenient and spacious streets, showing appreciation and enjoyment of the wealth acquired by the inhabitants.

Not only in the West Riding of Yorkshire, but in all parts of the north, have the large towns benefited either in the production of minerals or by the extension of manufactures. The results are shown in improved public buildings and streets and in the reconstruction or opening out of new routes. The convenience of the public and the health of the inhabitants have been consulted regardless of present cost, seeing that posterity will have to bear its proportion of the outlay, while those who are living desire to participate in the benefit. The facilities which the Government has placed within the power of corporate bodies enable them to raise money on their rates, extending over a considerable period if required, so that only a decimal amount is required for

* Pawson & Brailsford, Sheffield, 1875.

many years, while all the advantages are almost immediately obtained. A number of instances could be cited of actual profit being realised by the alterations."

The writer then goes on to urge, and with justice, that the time has come for Sheffield to improve the thoroughfares of the town, and provide proper municipal buildings, and he makes suggestions with these ends in view, which those who are locally interested and are conversant with the various *pros* and *cons.* that can be advanced should carefully consider.

THE INDIA MUSEUM QUESTION.

ON this subject Dr. Forbes Watson read a paper at the Society of Arts last week. In closing it, the reader said, the main difficulty in the management of a museum is to combine scientific thoroughness with that condensation of information, and that simplicity of the results which are indispensable if the influence of museums is ever to be felt beyond a small circle of connoisseurs. The solution of the difficulty lies in a division of functions between the central museums and local museums. The first would serve mainly for the preservation and elaboration of information, and for the general advancement of science and art, whilst local museums would fulfil the functions of making that information practically useful in rendering it accessible to the practical classes throughout the country. The central museum would not only be a store or reservoir of the accumulated knowledge of generations, but would likely be a laboratory or workshop, in which the typical collections would be prepared; it would epitomise the leading features of every one of the different groups of the museum, in the same manner in which the trade collections, already described, epitomise all the practically important conclusions which can be derived from a study of the whole of the collections of raw produce and manufactures contained in the India Museum. The local museums would consist mainly of copies and reproductions of these typical collections. It must not, however, be inferred that the usefulness of the original collections of the central museum will be exhausted by the preparation of typical collections, and that all the information which the central museum is capable of affording would be embraced within their compass. The central museum, from its systematic completeness and rich stores of information, will always remain the place for final reference, and will afford an inexhaustible field for new investigations, for the working up and the digestion of crude material, and for its elaboration into the clear and methodic shape in which it is capable of being made accessible to the public. It will contain the original documents, as it were, of the inquiry, and remain the workshop in which new results will be constantly produced,—the typical collections will exhibit only its final conclusions, and bring them into circulation, thus increasing its usefulness in about the same manner that printing multiplies the usefulness of a manuscript, and thus the central museum will be more especially an institution for increasing the number of people who will possess that knowledge. Thus the function of the central museum, as a store of information, as a source of official reference, and as a scientific institution promoting original inquiry, is independent of the typical collections; but the latter will extend the area of its influence from the scientific and literary class to the whole commercial and manufacturing community, and to the public at large.

The advantages of typical collections are the same as those already pointed out with regard to trade collections, viz., cheapness, compactness, simplicity, and clearness. It is not difficult to prove, moreover, that for the purpose of influencing and instructing the public at large, the small typical collection will be in every way superior to the complete original collection. Take any of the collections belonging to the British Museum, or to any scientific museum. It stands to reason that in representing the natural history of plants, or of fishes, or of birds, or of minerals, the untutored public will more easily assimilate the principles of scientific classification, and gather the structural progress apparent in the hierarchy of organic beings, if the collection contains only the number of specimens strictly required to bring out those main ideas in strong relief, the specimens being selected on account of their marked characteristics and typical significance. By increasing the number of specimens, the meaning is diluted, and finally obscured altogether, in the crowd of confused and unconnected details. Take the example of palæontology. A full palæontological series of the globe, which, if it could be compiled, would be invaluable to scientific geologists, would have to consist, at a guess, of, say, 50,000 specimens. But who will deny that a small collection of, say, 200 typical forms, will be far more suitable for rendering apparent to an unskilled visitor the few rudimentary notions which explain the bearing of the palæontological remains on geological science, and, which are all he can be expected to be interested in. Or take the rooms upon rooms filled at the British Museum with Greek vases, looking to the profane so very like each other. A dozen or a score of such productions would be ample for typifying to the general public the position which the Greek vases occupy in relation to ceramic art generally. Indeed, we may state as an undoubted fact, what at first sight looks like a paradox, *i.e.*, that the larger a collection the smaller the number of people who can visit it with any advantage, that is, of people who can derive from the inspection any useful ideas or conclusions.

The subject of typical collections also naturally offers itself as an illustration of another leading principle, without the systematic adoption of which it is idle to expect great and national results from the existence of museums. This principle consists in securing an organised public co-operation in carrying out the objects of the museum. It is evident that the preparation of typical collections is a very difficult undertaking. Nothing is so easy as a show of erudition, but nothing so repulsive to the general public. But to bring order and clearness to the exposition of a complex subject is a task for which only a few master-minds are qualified. The principal but most rare characteristics of our modern scientific men is the endeavour to fix certain leading types, and then to follow the variations of these types in accordance with the changes of the determining conditions. If these ideas are to be embodied in the typical collections like those here described, it is evident that this must be beyond the grasp of even the best staff which a museum can possess, and that it can only be done with the co-operation of the most eminent men of the day, each taking the group which most nearly corresponds with the subject of his particular study. Thus, as regards the India Museum, though it may be said that it is fortunate in having, in Dr. Birdwood, a man whose successful experience in dealing with similar matters in India is a tangible guarantee for entertaining hopes of a similar success in the case of the present museum, and, though on its staff there are several who have already made their mark in Indian subjects, yet it would be impossible, by their unaided efforts, to attempt the full execution of more than a few of those typical collections. Luckily, however, amongst those prominent on the field of Indian research men are not wanting who will devote time and trouble to a task of such manifest public advantage. I may mention the names of Mr. James Fergusson, of Mr. Edward Thomas, of Sir George Campbell, of the Hon. W. Egerton, and of Mr. Arthur Grote, and there are other members of the Asiatic Society, who are willing to help in this work.

There is also another direction in which public co-operation is no less urgently required, *i.e.*, co-operation for the purpose of securing a full dissemination of the information obtained through the instrumentality of museums. The support of the Indian Institute, and the foundation of local museums, belong to this part of the subject. I have no time to enter into this matter, beyond mentioning the fact that the formation of an influential committee is now under consideration, for the purpose of deciding what steps should be taken in order to secure the establishment of the Indian Institute.

Allow me to wind up by a brief reference to the present location of the India Museum, and to the question of its future and permanent location. The galleries at South Kensington containing the collections of this museum will be first opened on the 25th of May, for a *conversazione* given by the President of the Society of Civil Engineers, and no long delay will elapse before they are opened to the public likewise. It is out of question to expect that by that time anything like the full programme here indicated can be carried out. Only rough divisions between the main groups can be attempted at first. The special and typical collections must be the growth of years of labour, though probably the most interesting of them will be completed before the expiry of the three years' lease at South Kensington.

As regards the question of the future building, the first point is the expenditure required for it. On the subject of sharing the expenditure between England and India, I cannot add a single word to the convincing memorials presented to the Prime Minister, by the Chambers of Commerce of Manchester and Glasgow, as also by the Association of the Chambers of Commerce of the United Kingdom, which association has, in addition to a memorial already presented, adopted, at their late meeting, a resolution of following up their representations by a deputation. It is gratifying to find that the reasons which show that England should participate in the expenditure, have been sufficiently convincing to make some people inclined to think that not only a share but the whole of the expenditure should be borne by this country. Remembering the observations of John Stuart Mill in his autobiography about the advantages which accrue to an intermediate plan, from the existence of any distinct proposition of an extreme character, I am led to believe that the memorial presented by the Council of this Society in favour of paying for the whole establishment of the India Museum with English money will prove of no small assistance in securing the adoption of the intermediate course, of that recommending the sharing of the expenditure between the two countries.

As regards the amount of expenditure, it has been roughly estimated at about 100,000*l.*, which, however, would have to be spread over several years. As a certain time would have likewise to elapse before the plans could be prepared, the sum required in the current year would be but small.

Lastly, as regards the size, character, and location of the building. On all grounds of public expediency it would be of undoubted advantage to make use of the site in Charles-street already in possession of the India Office. An India Museum then would be not only in close proximity to the office, and easily available for official reference, but it would be in the very centre of public life, and not far removed from the centre of business. The only objection ever brought forward is the want of space. Apart from the fact that the condition of the surrounding property in nowise excludes the idea of future extension, there is abundant evidence that the space already in the hands of her Majesty's Government would be ample, not only for the purposes of an India Museum and Library, but also for the location of a Colonial Museum. I may mention several facts bearing on this point. There is no difficulty in erecting a building with a net floor space of double, or even treble, that now about to be occupied by the India Museum at South Kensington, and it must be remembered that the space will be far more convenient for arrangement than the wasteful and inconveniently narrow galleries at South Kensington. There is likewise to be kept in mind that the preparation of typical collections is sure to relieve the museum of a great deal of surplus articles. Moreover, I am satisfied that, by discarding in a great measure the use of the small movable cases, and by introducing the system of permanently fixed glass cases of large extent there will result not only a great saving in money, but likewise a surprising economy of space, accompanied by increased effect. If we are satisfied on the score of space, the other advantages of South Kensington—air and light—resolve themselves into a question of a few extra dusters and a trifling increase of the gas bill. Moreover, it cannot be left out of sight that the proposed concentration of educational museums at South Kensington cannot be effected without occupying a good deal of space, as also (as I had occasion to point out in a series of letters made public some time ago), it is to be taken into consideration that the idea of exhibitions is not nearly so dead that it could not be resuscitated with a more practical programme; because, whenever the people of this country will set earnestly about the establishment of technical museums, they will discover that no such museums will be efficient unless they are constantly recruited and kept to the level of the most recent progress by an international competition at exhibitions. On all these grounds I consider that it would be bad policy to alienate permanently any buildings or ground which would render it afterwards difficult, if not impossible, to resume the exhibitions. Thus, both in the best interests of the India Museum and in those of the grand series of institutions estab-

lished at South Kensington, I hold that it is best to adopt the Charles-street site as the place for the permanent location of the India Museum.

ASKE'S NEW SCHOOLS AT HOXTON.

FOR some time past the Haberdashers' Company have been engaged in converting Aske's Hoxton Almshouses into spacious schools, in accordance with the new scheme of the Endowed School Commission. The buildings are now almost completed, and the schools, which will accommodate about 250 boys, and an equal number of girls, are intended to be opened about the middle of next month.

Whilst the interior of the building has been almost entirely reconstructed, in order to adapt it to the purposes to which it is in future to be exclusively applied, very extensive new buildings have been added, including the erection of an entirely new elevation at the west side, which was formerly the rear of the building, but which has now been converted into one of the main frontages of the structure. This newly-added portion is carried westward to a depth of about 50 ft., in order to admit of the construction of an unusually large school-room. It is also 52 ft. in width. It is built of yellow brick, with Portland cement dressings, the elevation containing five lofty windows, 16 ft. in height, by which, with four similar windows on the north and south sides, the large school-room is lighted. A spacious new class-room has been erected, in addition to other rooms in the reconstructed building, which have also been converted into class-rooms. At the north-east side of the building a porter's lodge has been erected, containing six apartments, with sufficient accommodation for a porter and his wife. The whole of the almshouses on the north and south sides of the main school buildings fronting Pittfield-street have been swept away, and the entire area with a frontage of about 200 ft. in length, and upwards of 100 ft. in depth, is to be asphalted, and appropriated as a recreation-ground for the boys, with a spacious covered playground or shed at the south-east corner of the grounds. A large area on the west side, in front of the new west frontage just described, will be similarly laid out as a recreation and playground for the girls.

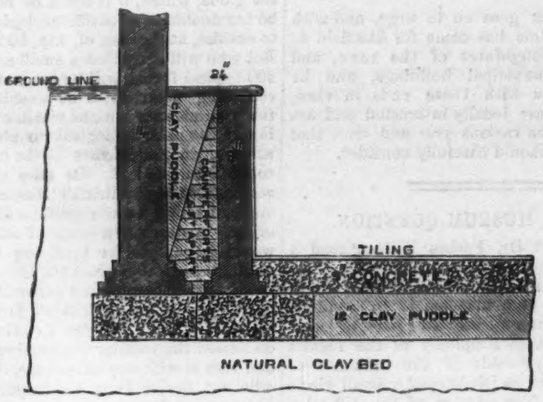
The rearrangement of the interior of the old school buildings amounts to an entire conversion. What was formerly the chapel now forms a portion of the main public schoolroom, which is 81 ft. in length and 32 ft. in width at that part which was formerly the chapel, the west end, or added portion being 50 ft. in width, and the schoolroom containing an aggregate superficial area of 3,200 ft. It is 28 ft. in height from the floor to the ceiling. The walls entirely around the apartment are wainscoted to a height of about 5 ft., and in addition to the west and north and south windows, it is lighted by a skylight over that portion which was formerly the chapel. Corridors on each side of the schoolroom, 6 ft. in width, lead to the different class-rooms, which are ten in number,—five for girls, and five for boys,—the boys' class-rooms being on the south side, and those for the girls on the north side.

Instead of, as formerly, being a school with alms-houses combined, for the education of twenty boys, the sons of haberdashers, and the support of twenty inmates of the alms-houses, the establishment will now be exclusively an educational institution for about 500 children, for whom a low rate of tutors' fees is to be paid as fixed by the Endowed School Commission, a preference being given in the admission of pupils to the children of haberdashers.

Mr. W. Snooke, of Duke-street, London Bridge, the architect to the Haberdashers' Company, designed the new buildings and alterations, which have been carried out by Messrs Rider & Son, the contractors, Mr. Hobbs being foreman of the works, the estimated cost of which is about 10,000*l*.

New Congregational Schools, Stockton.—The foundation stone of new schools in connexion with the Congregational Chapel was laid on the 17th ult., by Mr. Dodds, M.P., in presence of a large number of spectators. The Rev. J. Sidebottom read a copy of the document to be placed in the stone, which gave the history of the school since its commencement in 1845 at the then newly-erected chapel.

CONSTRUCTION OF PLUNGE BATHS.



CONSTRUCTION OF PLUNGE BATHS.

THE accompanying sketch shows how I propose to construct a plunge-bath, about 24 ft. by 16 ft. in the clear. I should be obliged if some of your correspondents would kindly suggest any improvements or saving. ZETA.

HOUSES FOR THE MIDDLE CLASSES.

SIR,—We hear in these days a great deal about the working classes. Among other things they are to have dwellings built with every convenience, for which they are to pay a low rent: good. If some person would do the same for those called the middle classes, who are quite as badly off for house accommodation, he would deserve their best thanks. A block of buildings not exactly like a barrack would pay well. The heaps of rubbish that are run up by builders, and called houses, with a few coloured bricks to catch the eye, walls through which you can hear your neighbours talk, and which suck in water like a sponge, doors that will not shut, locks and bolts that will not fasten, and the woodwork of which shrinks until you can peep through the chinks; these are the places for which an enormous per-centage on the value is exacted in the shape of rent, and they are the cause of half the maladies to which Londoners are subjected. Let some enterprising person build a block with the same conveniences with which the so-called industrial dwellings are furnished, and I venture to assert that he will not repent it. C. J. D.

VENTILATION OF ROOMS.

AN examination of the principle of Mr. Tobin's method of ventilation, referred to by us some time ago, and, as stated in the *Times* of the 12th ult., shows some good features in it. A stream of fresh air may, no doubt, be projected from the mouth of a vertical pipe, which may stand up some few feet above the floor, with sufficient velocity to cause it to impinge against the ceiling of a room, and if the ceiling is flat, the current of air will be deflected in all directions or in any required direction where the part of the ceiling above this pipe is formed in any given manner.

One would first ask what becomes of the heavy respired air of the persons in the room, which, after ascending to some height, by reason of the rarefaction caused by its higher temperature, falls down again towards the floor when its heat has left it? It would seem that it becomes mixed with such an amount of fresh and lighter air as to enable it to rise and pass through the air-outlet, whether that be the fireplace or other flue, its place being supplied by a plenum of fresh air, to be in its turn converted and passed away. The chief point of the method is the dispersion of the air current at the ceiling, breaking it up into threads of air, which are then no longer able by combination to produce a draught in any particular part of the room. These fall,—we may presume,—through the air of the room as rain falls, or similarly; the acting force being that of gravity, for the entering particles of fresh air are less heated than the air of the room, and heavier than those of the upper part of the room. In any case where the outer air is warmer than that of the room we should expect there would be no action naturally; but a small external force would be sufficient to drive a current through the pipes. The way in which it would mix with the air of the room, however, would be different, under these circumstances; the mixture would take place by diffusion, which is the manner in which lighter air mixes itself with heavier air, the lighter in this case being the active body; whereas when the entering air is cooler than that of the room the heavier is the acting body, and falls by the force of gravity. Its rate of falling, however, is slow, the difference between the density of the one body and that of the other being small; and hence there is no "draught."

When the difference of the specific weights of the air outside and inside the room is but small, the current of air through the pipes may not be of sufficient velocity to carry it to the ceiling of a high room; in that case the action of diffusion would take place, even, though the entering air be specifically heavier than the air of the room.

THE PROPOSED NEW OPERA HOUSE ON THE EMBANKMENT.

AT the last meeting of the Metropolitan Board of Works, the Works and General Purposes Committee brought up the following report in regard to the proposed New Opera House on the Victoria Embankment:—"The committee have to report that they have considered the letter from Mr. Mapleson, asking the Board whether they would make any objection to the Opera House which he proposed to erect on the Victoria Embankment at Cannon-row, being kept to the old river line from east to west, referred by the Board on the 19th of March last. It was said that a depth of 200 ft. is absolutely essential for a first-class Opera House, such as Mr. Mapleson desires to erect, and in consequence of his inability to purchase the two houses in Cannon-row, it will be necessary, in order to satisfy this requirement, to advance the entrance of the building within about 30 ft. of the pavement of the Embankment and about a mean distance of 75 ft. in advance of the restricted line of frontage. Mr. Mapleson also proposes to make a roadway on each side 15 ft. wide to be given up to the use of the public. Should the Board not agree to the advance of the building with the principal front and entrance to the Embankment, the only way of getting over the difficulty would be to place the flank to the Embankment, and make the entrance up one side, and this would, of course, render it necessary to forego the architectural effect which would be produced by an elaborate approach and entrance façade fronting the Embankment. There would also then be no side-streets at all, as all the space to be given to them would be required, and the effect would be unsatisfactory. Your committee have reason to believe that the proposed alteration in the plan will not be objected to on behalf of the Government, and provided the intended streets are increased in width from 15 ft. to 20 ft."

On a division the recommendation of the committee was adopted.

THE REPORT OF THE COUNCIL OF THE INSTITUTE OF ARCHITECTS.

THE report which is to be presented on Monday evening is singularly uninteresting to any but those who have by this time received it, and as the writers of it have the bravery to state that one of the reasons why the ordinary general meetings are but poorly attended is that the papers read are often reported *in extenso* by the press, they will doubtless be obliged to us for printing none of it. In this same report the writers have to quote as against some who object to the present mode of managing the Institute, that the latter forget that one of the broader purposes for which the Institute was founded is "to promote the advancement of a special Art." Do they not themselves forget this when they seek to restrain the publication of papers having the advancement of this special art in view? In the interest of the Institute we may not cease to speak of this as entirely mistaken policy.

THE AFFAIRS OF THE INSTITUTE OF ARCHITECTS.

SIR,—I beg to ask the favour of being permitted to say a word in your journal in order to prevent a probable misunderstanding of the notice I have given to call the attention of the annual meeting of the Institute, next Monday evening, to the way in which the secretaryship is administered. It is true that this notice was more immediately provoked by certain unprecedented official proceedings which took place at the last meeting, in the way of "putting down" a couple of members who "wanted to know"; but it must not be supposed that any passing question of a mere personal affront to those gentlemen is what I have to remark upon. I have observed with pain for years past that the affairs of the Institute are being conducted upon a peculiar principle of personal government, which, as I think, not only is unauthorised in the written regulations, but is directly subversive of the best interests of the Society and of the profession. The evil is to be remedied, as I further think, by a simple return to the true and honest intent and meaning of the charter and bye-laws; and my object is to take the opportunity which now offers for an appeal to the good sense of the members at large upon this vital point. I wish I could hope to see present on Monday evening a few of the old friends who used, in former days, to take their part in our fraternal debates with so much wisdom; but I very much fear it is too late now.

ROBERT KERR.

THE SUGGESTED UNION OF THE TWO METROPOLITAN ARCHITECTURAL SOCIETIES.

A FEW months since, the late president of the junior Society invited myself and some half-dozen others to meet at his chambers to discuss certain general propositions, which he had prepared to test the propriety or otherwise of attempting a fusion of the two societies known as the Royal Institute of British Architects and the Architectural Association.

Being unable to be present, I sent to Mr. Tarver my first impressions, and also wrote to Mr. Sharpe, of Lancaster, asking him to favour us with his judgment on the matter.

Mr. Clarkson, as secretary of the Association, made a similar appeal to Mr. Sharpe, the result of which was, that Mr. Sharpe addressed a letter to Mr. Clarkson, and at the same time enclosed a copy to me.

This letter I now forward to you for publication in its complete form, after due consultation with others and with the permission of its author, in a letter received from Mr. Sharpe on the 15th of April.

It will be understood that this contribution of Mr. Sharpe's towards a fuller discussion of the subject was written at an early stage of the negotiations, and it is the first expression of opinion systematically thought out.

As other and more detailed suggestions are now in existence, it has been thought better that his views should be stated in his own words, so that they may be contrasted with other propositions which have been formed, both with and without a knowledge of what he has written.

It is obviously necessary to the realisation of Mr. Sharpe's scheme, as to every other scheme worthy of any attention, that a reorganisation of the elder Institute must either precede or follow any such fusion of the two societies.

Mr. Sharpe thinks that the proposed amalgamation should *precede* organic changes, and thus expresses himself to me in his last letter from the Pyrenees:—

"The first thing to be done, I am confident, is to unite the two bodies, and only to discuss the basis on which this is to be done, and the powers and limits of power that are to be assigned to each in the amalgamation. The united wisdom of the whole profession, acting in a common interest, will then be brought to bear on such questions of change, reform, and progress as may be proposed, with a much greater chance of unanimity than if discussed now."

I forbear giving any personal expression of opinion at the present stage, but I trust you will find space for well-digested thoughts on the subject.

Twenty years ago, I supported Sir Digby Wyatt when a proposition was then made for the absorption of the Association by the Institute. At that time the Association was supposed to be on its last legs. The times have changed, and the two societies are now at the zenith of their strength, and each has enrolled nearly an equal number of members.

Neither society has need of the other to sustain itself, or to continue its usefulness, but the proposition is this,—May not both contribute to the prosperity of the profession as a whole, by uniting for that end, and for that end alone?

EDWARD C. ROBINS.

I entirely accept your views as expressed in your letter of the 4th inst., and I fully appreciate the difficulties in the way of an amalgamation of the Institute and the Association; and agree with you that any combination of the two which would interfere with the independence of the latter or change its representative character is not to be desired.

With this proviso, in what way can the two societies be made mutually useful to one another and to the profession generally? It is a matter to be studied and if possible to be accomplished.

On the one hand, we have, in the Association, activity, energy, zeal, self-help, a good working system, and an organisation which provides efficient and useful occupation for no less than sixty officials out of the 600 members of which it consists.

On the other hand, we have in the Institute professional status, acquired honours, mature experience, abundant means, and a magnificent library, but little enthusiasm; and, considering that the Institute numbers upwards of 600 members, but can rarely muster more than fifty even on extraordinary occasions, an almost entire and not unnatural abstention on the part of the great bulk of its members in any participation in the active work of the Institute.

To unite the professional experience, financial power, and honourable consideration of the one, with the restless activity and working freedom of the other without damage to either, or rather to provide for the harmonious combination of these not antagonistic elements in such a manner that those of each society shall dovetail in with and contribute to the enhancement of those of the other, and thus to present a union of upwards of 1,200 members as the representative Institute of the architectural profession, would be an achievement worth an effort, and one that would, I think, greatly redound to the credit of the profession and to its consideration in public opinion.

I am scarcely the fittest person to suggest by what machinery this union should be accomplished, for a more intimate knowledge of the nature of the charter of the Institute, and of the details of the working of the Association than I possess, is necessary for this purpose. But it appears to me that without any considerable sacrifice on either side, and with good will on both sides, it ought not to be a difficult matter.

Suppose, for example, starting from the present moment, and taking things as they are, we were to combine the two societies under the general denomination of the Architectural Institute, and leaving to each its freedom of action and separate organisation, we were to provide that the elder Society be regarded as comprising the "graduates" of the profession, and the younger Society the "students" or "associates," the graduates being of two classes or orders (now Fellows and Associates), to be called hereafter, Fellows and Members, and the younger to be called either Students or Associates. The students to carry on under their own President and officers, elected by themselves out of the joint body, their present excellent working system of self-instruction, their subscriptions remaining the same, but the value and number of their prizes and rewards being considerably augmented by an annual contribution from the funds of the Institute, and their means of self-instruction being greatly increased by throwing the Library of the Institute entirely open, under proper conditions, to the students even to the extent of allowing books and drawings to be taken out for home study. It would have to be considered whether the additional prizes granted by the Institute should not be awarded by examiners appointed by their own body, or whether they should be elected out of that body, or out of the joint body by the junior Society.

The mode of election or nomination of graduates, first to the lower, and afterwards to the higher degrees (equivalent to those of Bachelor and Master of Arts in the universities), wholly out of the body of the students, would also have to be considered; and whether by examination,—which would appear to be desirable, if not essential, or otherwise; and if by examination, whether proficiency in different lines of knowledge or ability, and *not in all*, should not be taken as a sufficient qualification. On this head I may remark that the establishment of the architectural examination appears to me to be not only a good precedent to follow, but the initiatory step towards the realisation of this more comprehensive project.

I would, in fact, make the junior part of the body,—*the sphere of work*; and the senior part the *sphere of honour*, to which it should become, in the natural course of things, the tendency and the ambition of the juniors to ascend.

The object, then, of the proposal being:—(1) To promote harmonious working between two essentially different bodies of men *engaged in the same pursuits*; and (2) to facilitate the gradual ascent of the more painstaking, the more able, and the more deserving of the younger body from a state of pupilage and obscurity, to a position of professional credit and honour; every proposition and suggestion should be set aside, which would offer the slightest impediment to the attainment of this result, and every means be adopted which would promote its realisation.

As regards initial letters I would confine the use of them to the *graduates*, the Fellows being privileged to add F.I.A. to their names, and the Members M.I.A. As to the reading of papers, &c., I would leave matters entirely as they are, each body retaining its own arrangements, with the difference that all members of bodies should be entitled to admission to the lectures and exhibitions of both.

Should you find anything in these very rough and incomplete ideas which may be useful in the preparation of any practical scheme having the same object in view, you are quite at liberty to make use of them as and when you think fit.

EDMUND SHARPE.

THE MASONIC MEETING IN THE ALBERT HALL.

THE Wednesday next after St. George's Day of 1875 will ever be memorable in the records of English Freemasonry as the date of the largest and most magnificent meeting of the Grand Lodge that has ever been held in England, or, in point of fact, in the world; for in no other country could such a gathering be possible, and for this assertion only one reason amongst many need be given, viz., that nowhere else in the world could such a building as the Albert Hall be obtained for the purpose. The immense area, from arena to topmost gallery, was filled with the representatives of lodges from all parts of England, supplemented by deputations from the Grand Lodges of Scotland, Ireland, and Sweden, and a representative also of that of Denmark, to assist at the installation of His Royal Highness the Prince of Wales as Most Worshipful Grand Master of England. It is no part of our province to say anything of the proceedings, to do which, as our Masonic readers are aware, would be a gross breach of etiquette, if nothing worse; and when we have said that his Royal Highness appeared in excellent health, and was the only speaker able to render every word he said perfectly audible; that another royal Mason was present in the person of H.R.H. the Duke of Connaught; that the

Lord Mayor, amongst others, received Grand Lodge rank; and that everything was arranged and managed to perfection, under the able direction of Bros. Sir Albert Woods, John Hervey, and T. Fenn; it only remains for us to record that the spectacle was such as can never be effaced from the memory of any one who was present, and when the vast assemblage arose to greet the M.W.G.M., there must have been few in the hall who were not impressed with the deep feelings of loyalty which characterise the Masonic body, and convinced that the ceremony must have the best effect in spreading the beneficent results of Freemasonry.

THE LATE MR. PICKERSGILL, R.A.

THE death is announced of Mr. H. W. Pickersgill, R.A., who died on the 22nd inst., at his residence in Blanford-square, at the advanced age of ninety-three. He was for some time assistant to Sir T. Lawrence. He was made an Academician as long ago as the year 1826, and a member of the Dutch Academy in 1848. Mr. Pickersgill began his career immediately after the death of Lawrence, when portrait-painting was much in vogue, and he painted almost all the great men of his period,—noblemen, statesmen, men of science and literature, and some of the Waterloo heroes. Many of his portraits are fine works. His valuable collection of remaining pictures, costumes, and works of art will be sold by auction before long.

THE LATE MR. BENJAMIN J. BAUD, ARCHITECT.

A FEW days since (April 17), died in his quiet home, at Richmond, Mr. Benjamin Baud, aged sixty-nine, an architect now almost forgotten in the profession. He was in his early days an assistant to Sir Jeffrey Wyattville, when he took an active part in the alterations and improvements at Windsor Castle. Subsequently, in conjunction with Mr. Gandy, he published a work describing and illustrating that royal residence.

His general ideas of Gothic detail were not quite in accordance with the accepted tastes of the present day, although his designs were often prepared in that style.

He was much employed in alterations and additions to the mansions of various noblemen and gentlemen, and numbered amongst his largest works the cemetery at West Brompton.

In his later years, since a slight attack of paralysis, which affected his health, he did little besides some private business for one client, but spent most of his days painting in oil, or preparing drawings. The promises of his early years were scarcely fulfilled.

AGITATION IN THE BUILDING TRADES.

AT Manchester the operative bricklayers, masons, and joiners have given notice for an advance of wages, to come into operation immediately. The bricklayers, it is understood, have succeeded, the employers having agreed to advance their wages one half-penny per hour, making 9½d. The stonemasons have 8d. per hour, and ask 9d. A great drawback to the masons is the fact that stone, especially in large dimensions, cannot be obtained. Several buildings in Manchester are at a stand for want of stone. The best quarries in Yorkshire, as well as many others in this neighbourhood, are full of orders which they cannot execute. Masons, therefore, are not in great request, but the employers are not unlikely to concede a small advance. The carpenters and joiners were advanced from 7½d. to 8d. per hour two years ago, and an agreement exists between them and the employers to refer all matters of difference to arbitration. They ask 9d. per hour, to commence on the 1st of May, along with a number of alterations in their working rules. The whole matter was referred about a month ago. The men, however, were not satisfied with the award of the arbitrator, and at a general meeting of joiners, held on the 13th ult., the committee were instructed to ask the employers to "make fresh arrangements with a view to a settlement." The employers have declined to have the question re-opened, and so the matter stands.

The Durham joiners, taking advantage of the briskness of trade, have asked the masters for an advance of ½d. an hour upon their present wage, which is 7½d. per hour. The men also stipulate that the numbers of hours shall be fifty per week, instead of fifty-three. The masters have offered 8d. an hour, on condition that the hours remain as at present. This offer, however, the men have refused to accept.

The painters and glaziers of Kidderminster have resolved to ask the employers for an advance of 1d. per hour, and a suspension of work is talked about if the demand is not acceded to. The present rate of wages is 5½d. per hour, and an ordinary week's work consists of 56½ hours.

The strike of Glasgow joiners may be virtually considered at an end, the majority of the masters, it is stated, having agreed to sign the bye-laws. A few employers still remain determined to resist.

The Glasgow painters memorialise their employers for an advance of ½d. per hour on their present wages, and also that after the 1st May the working hours be reduced to fifty-four per week.

At Aberdeen the master shipbuilders have acceded to the demands of the men for an increase of pay, and those of the men who did not leave town during the strike, which lasted about three weeks, have resumed work.

COMPETITIONS.

Dartford School Board.—Twenty-six designs were received in competition for these schools, to accommodate 300 children, those by Mr. W. H. Powell, of Mecklenburgh-square, obtaining the first premium.

Feltham School Board.—The same architect's designs have been selected in this competition, for schools which accommodate 300 children, and a master's house.

The designs of Messrs. Hay & Oliver have recently been chosen by the Wellington School Board, Somerset, and also by the Little Bytham School Board, Lincolnshire.

THE BRITISH MUSEUM STAIRCASE.

I SEE a note in your pages referring to the British Museum expenditure this year of 9,538*l.*, that "almost the whole of this increase is in consequence of works and repairs, and the erection of a new principal staircase." Can you afford your readers further information on these proposed works? Is it really true that the trustees are about to pull down the present magnificent staircase, perhaps the grandest staircase to any public building in England? The one at the Foreign Office may be finer, but it does not, in my opinion, surpass the one at the British Museum. I hear that the proposed staircase is to come out to the front of the building; but perhaps you can inform us of the intentions of the authorities. By the way, who is now the architect to the British Museum since the resignation of Mr. Sydney Smirke? W.

THE OVERFLOW OF THE THAMES.

PROPOSED RIVER WALL AT BANKSIDE.

THE subject of protecting the houses and property on the south banks of the Thames from injury in case of any future overflow of the river, has for some time been under the consideration of the St. Saviour's Board of Works, and at their meeting held last week the surveyor submitted a scheme for protecting the district against any such anticipated overflow. The scheme comprehends the construction of a river wall to extend from the premises of the Phœnix Gas Company, on Bankside, to the Charing-cross railway viaduct. The project is to be considered by the St. Saviour's Board at their meeting next week.

IMPROVED INDUSTRIAL DWELLINGS.

SIR,—I observe a letter signed "N. S. J." in last week's *Builder*, in which the writer finds various faults with the arrangement of the pipes forming part of the sanitary arrangements of the buildings. Had he been able to see the remainder of the details, I think he would in some respects have altered his opinion, for although I admit separate pipes for the various purposes required might be best when the expense was no object, I considered it desirable on the score of economy to simplify the arrangement as much as possible. In the first place, I intended to have the cisterns divided in two parts, the water flowing first into the portion allotted for the use of scullories, and then filling that intended for the w.c.s. In this portion the overflow pipe would be fixed, and as this on being taken out would form the waste-pipe, there would be no fear of the trap being emptied, as I take it for granted that it would be the duty of any one placed in charge of such buildings to see that the cisterns were periodically flushed out. The writer of the letter would also not be aware that the soil and waste pipe is continued upward within the ventilating shaft from the dust-receivers, and terminates with a covered opening at about 12 ft. above the roofs: this open end would prevent suction, as feared by your correspondent; and with respect to the waste-pipe from the sink, I mentioned in particulars sent in that a short additional length of pipe would take it direct to the fall-pipe outside the buildings.

So far as my experience goes, I have no reason to fear the cracking of any pipes leading from the washhouses and bath-rooms on the roof, as the water after having been used for the purposes required would certainly not be very hot.

HENRY MACAULAY.

CARE FOR RELICS.

SIR,—I beg to send you the following anecdote, which illustrates the vandalism of Guardians of ancient relics:—

Some years ago, a gentleman of my acquaintance, riding on an omnibus, fell into conversation with the person beside him, who said, "You'd never guess what I bought to-day." "Oh, no; what was it?" "*The Traitor's Gate at the Tower.*" GEORGE SOTHEBY.

*** Where is it now?

TORQUAY MUSEUM.

THIS building is now completed. The style is a sort of Venetian Gothic. It has a frontage of about 70 ft., and is entered by a porch, the arches being carried by carved capitals, and the spandrels filled up with ornamentation. It is a two-storied building, with corbelled roof in Bath stone. Over each of the upper windows is a large tympanum, but only one of these is at present filled up. It is intended, however, at a future time to fill the others with sculpture, sketches having been prepared by the late J. Birnie Philip. As at present arranged, it is intended to fill them with *terra cotta* work, but many prefer representations in stone. The capitals of the upper windows are enriched with carving, and carving has been somewhat sparingly used in other parts of the building by Mr. Harry Hems. All the dressings are in Bath stone, the quoins are in dressed limestone, the walls being of the same material. On the ground floor is a library, 34 ft. by 28 ft., a reading-room 28 ft. by 16 ft., and a committee-room. The floors and the entrance-hall,—which is 10 ft. wide, and vestibule,—are laid with encaustic tiles, and lead to the grand staircase, 24 ft. by 21 ft. The first floor will be taken up entirely by the museum,—a room 68 ft. by 34 ft., having an open timbered roof. The height to the ridge of the lantern light is 42 ft., and around the room it is proposed eventually to carry a gallery. Portions will be added,—a large lecture-theatre, with professors' rooms, and a residence for the curator. The building, so far as at present completed, has been built for 2,900*l.* by Mr. Bovey. The architect is Mr. Harvey, of Whitehall, who gratuitously furnished designs.

PENALTY FOR BAD WORK.

DURRANT *v.* SPRINGALL.

A CASE of refusal to pay for work not properly done was tried on the 21st ult., at the Yarmouth County Court.

Plaintiff is a painter, and defendant a builder, and the claim was for 1*l.* for painting a room in a building.

Mr. J. Clowes appeared for the defendant, who admitted he employed the complainant, but contended that the work was not properly done, and took off 1*l.* in consequence.

Plaintiff admitted he was not a first-class grainer, but said defendant understood this when he employed him.

Two witnesses were called for the defendant, who stated that the work was not passable, and taking into account plaintiff's admission that he was not a "professional grainer," his Honour

gave judgment for the defendant, and advised the plaintiff not to undertake work in future which he did not understand.

Miscellanea.

Opening of a New Roman Catholic Church at Canterbury.—The ceremony of opening a Roman Catholic Church recently erected at Canterbury, took place on the 13th ult. The old Catholic chapel in Canterbury was situated in one of the streets abutting to the cathedral, and close to an old parish church—Burgate,—which has been recently pulled down. It appears, however, that no authority could be obtained to remove the tower, and there it stands as an evidence that a church was upon the spot. It is close here that the new Catholic church has been erected, and, curiously enough, the removal of the body of the Protestant church has given a front elevation to the new structure facing a main thoroughfare, of which advantage it is not likely to be deprived, since consecrated ground cannot be appreciated to secular purposes. The designs were prepared by Mr. J. G. Hall, city surveyor of Canterbury, the estimated outlay being 3,500*l*. Estimates were obtained, and that of Messrs. Gasken & Godden, of Canterbury, for 2,993*l*., accepted. The high altar reredos figure of St. Thomas and the angels to the front have been executed by Messrs. Palmer & Brindley. The subject on the epistle side of the reredos is the Martyrdom of St. Thomas à Becket; that on the gospel side is Henry II. kneeling and doing penance at the tomb of St. Thomas, exposing his shoulders to be scourged by the monks. Messrs. Gasken & Godden, the contractors, have executed the works in a satisfactory manner.

Roman Mosaics, Italica (near Seville). To those interested in the archæological remains of Southern Spain, it may not be without interest to know that Señor Demetrio de los Rios, of Chipiona, has of late years collected a considerable mass of valuable data bearing upon the history of Itálica, the birthplace of the Emperors Trajan, Hadrian, and Theodosius. The *Athenæum* says, Señor Rios is about to attempt to galvanise these grey bones into life, having completed for the press a work entitled "Itálica," containing carefully-worked drawings to scale of the mosaics, &c., which have been discovered since Laborde issued his magnificent folio (1806), and embracing an elaborate account (with coloured plates) of the mosaic discovered in 1799, by a monk of San Isidoro (a neighbouring convent), who, at his own expense, erected a wall to enclose it; wall and mosaic were both destroyed by Soult and his braves during the French occupation of the South of Spain. In 1872, the owner of the "weeds and olive groves" being interested in archæology, commenced excavations, uncovering about forty-nine square (Spanish) metros; in 1873, an atrium was discovered, and in 1874, under the auspices of his widow, and mainly at his expense, 800 square metros more were uncovered, forming, apparently, the ground-plan of some Roman building of importance.

Gift of Scholarships to the School Board.—At the weekly meeting of the School Board for London, on the 21st inst., Sir Charles Reed, the chairman, announced, amid much cheering, that the Drapers' Company, in answer to his appeal, had resolved to give the Board seven scholarships annually, of the value of 30*l*. each,—four for boys and three for girls. This gift makes thirteen scholarships at the disposal of the Board, which are open to the competition of the children in all the public elementary schools of London. The thanks of the Board were ordered to be presented to the Drapers' Company. Mr. Lucraft condemned the sending of any more children to Canada under the auspices of the Board, and moved that a resolution respecting the matter, which was passed last February, be rescinded. The proposition was, after a long discussion, negatived by a large majority. We are sorry for it.

Fatal Accident in a Timber-yard.—On the 23rd ult., a fatal accident occurred in Messrs. Walker's timber-yard, Bury. A labourer, named Duncan Reoch, residing in Back Bambury-street, was standing beneath a heavy piece of timber, which was being raised by a travelling-crane, when it swung round and knocked him down, inflicting such injuries that he died shortly afterwards. The unfortunate man leaves a widow and ten children.

Sanitary Condition of St. George's, Hanover-square.—At the usual weekly meeting of the St. George's (Hanover-square) Board of Works, Dr. Corfield reported that during the five weeks ending April 10, 232 deaths had been registered. The death rate was considerably in excess of the average, caused no doubt by the severity of the season. Mr. Barlow again called attention to the want of water in thirty houses in Garden-street, and said that if something was not speedily done some injurious consequences would arise. The surveyor informed the Board that he had written to the authorities of the Westminster district, in which the street was situated, but did not know whether any action had been taken. The clerk was instructed to obtain the inspector of nuisances' report upon the matter, and if nothing had been done to write to the Westminster District Board calling their attention to it.

The New Premises of the Leicestershire Banking Company.—The memorial stone of the new buildings of the Leicestershire Banking Company, situated at the corner of Bishop-street and Granby-street, Leicester, was laid in a semi-public manner. The style of the buildings is a modified form of Gothic, and the portion now in course of erection is of the same character as the part already occupied. The structure is being built of red brick with Portland stone dressings, and polished granite and Greenmore stone columns. The main length of the building in Bishop-street is 160 ft., while it has a frontage of 73 ft. in Granby-street. A short tower will be erected above the main entrance at the corner of Bishop-street and Granby-street, to the top of which will be 80 ft. from the ground. Messrs. Goddard & Paget are the architects, Mr. William Clifton is superintendent of the works; Messrs. T. & H. Herbert are the contractors; and Mr. H. F. Allen is the mason.

Fall of Arches at Ramsgate.—On the 21st ult. an accident occurred at the gas works of the Isle of Thanet Gas Company, situate in Hardres-street. The foreman of the yard, Mr. J. Philpott, was superintending the removal of some retort arches, which were being pulled down to be rebuilt, and another man, named Edward Crouch, was engaged in the work. There were four arches, and the "keying" of one of them gave way. The whole of the brickwork fell, and the two men were buried amongst the *débris*. Mr. W. A. Valon, the manager, was on the spot immediately after the accident occurred, and when the two unfortunate men were extricated from the heap of bricks it was found that Mr. Philpott had his leg broken. Crouch was bruised and severely shaken.

Accident at the New Law Courts.—On Monday last, a fatal accident occurred at the New Law Courts now in course of erection near Temple Bar. William Roberts, residing in Church-place, Somers-town, was engaged with a gang of other men in attending to the removal of large slabs of stone. The stones were lifted by a jib, worked by a derrick capable of lifting three tons. Whilst they were in the act of shifting one of the large slabs on to the front of the building near St. Clement's Church, and whilst the deceased and others were guiding the jib, it gave way, and fell a distance of 15 ft. upon the deceased. The man was conveyed to King's College Hospital, and was found to be dead.

Fall of a Stack of Boards.—An accident of a serious character occurred on the 26th ult in a timber-yard in Henry-street, Gray's Inn-road, belonging to Messrs. Brachin & Son, builders and contractors. Several men were engaged in forming a stack of 1 in. boards, among them two men named Thomas Brown, aged 36, of 17, Verulam-street, and James Velle, aged 45, living in Baldwin's-gardens, when a portion of the stack toppled over on to the unfortunate men, who were removed to the Royal Free Hospital, when it was found that Brown was suffering from fracture and severe internal injuries, and that Velle was suffering from severe external bruises and injuries over the body, including both arms and legs.

Cambridge Working Men's Club and Institute.—It is intended to hold the second Industrial Exhibition and Fine Art Loan Collection about Christmas of the present year. Special and other prizes will be offered to workmen and amateurs. Upwards of 23,000 persons attended the first exhibition in 1873.

Fatal Fall from a Roof at Nottingham.—On the 10th ult., a youth named Nicholson was employed on the roof of a building 60 ft. high, from which he fell and was killed. At the inquest at the Hospital, which was adjourned from last week for the jurymen to go and view the place of the accident, the following verdict was returned: "That the said George Nicholson died on the 10th of April from having accidentally fallen from a building about 60 ft. high, whilst endeavouring to cover a ridge roll, and that such fall was in a great measure due to the neglect of the contractor and others engaged as the principals in such building to take necessary precautions for the safety of the persons employed there."

The Alexandra Palace.—The Lord Mayor will attend in state with the sheriffs of London and Middlesex to open the new Alexandra Palace on, this, Saturday. His Lordship will be received at the western entrance to the palace by Sir E. Lee, the chairman and the directors of the company, and conducted to the concert-hall, the band of the Coldstream Guards heading the procession. The Lord Mayor will declare the palace to be re-opened. The concert, by members of Her Majesty's Opera Company, conducted by Sir Michael Costa, will then take place. This musical festival will be followed by a *déjeûner* given by the directors to the civic party.

Leicester Square.—On the 22nd ultimo, Leicester-square, which has for some time been closed to the public, was re-opened. Under the direction of Mr. McKenzie, chief gardener to the Metropolitan Board of Works, the flower-beds have been rearranged and planted, and the paths laid with asphalte. The fountain in the centre of the enclosure will commence playing on the 1st of May. It may be stated that the cost of supplying this fountain last year with water amounted to a sum averaging 15*s*. per hour. The offer by Mr. Grant of a band to play there has been declined.

The Late Lady Milbank.—The memorial archway erected by the parishoners of Barningham, near Barnard Castle, to the memory of the late Lady A. H. Milbank, is now completed. It stands at the entrance to the church path, opposite the hall gates. It is a substantial erection, consisting of a stonework arch, 20 ft. high, and surmounted by a foliated cross. The arch bears the following inscription:—"In loving memory of the late Lady Augusta Henrietta Milbank, who fell asleep, Sept. 13th, 1874. This woman was full of good works and almsdeeds which she did. Acts, 9th chapter, 36th verse."

Transfer of the Metropolitan Water Companies.—On Saturday last a deputation of the representatives of the metropolitan water companies had an interview with the President of the Local Government Board, to urge the Government to oppose Colonel Beresford's Bill for transferring the water companies of the metropolis to three commissioners, and to give a constant supply at high pressure. The companies proposed to be taken over, and who were all represented by their chairmen and solicitors, are the New River Company, the Lambeth, the Chelsea, the Kent, East London, West Middlesex, Grand Junction, and Southwark.

The Purchase of Stockwell Green.—A Bill, promoted by the Metropolitan Board of Works for the purchase of the ancient green at Stockwell, and to keep the same as an open space or recreation ground, came on for consideration in a Committee of the House of Commons on the 21st ult. Several witnesses said that they viewed with alarm the proposition to build on the green. The Committee on the 23rd decided that the preamble of the Bill was not proved.

Widnes Local Board.—At a meeting of this Board on the 27th ult., Mr. J. Higginson, of Manchester, was appointed surveyor in the room of Mr. Anthony Shelmerdine, resigned. There were seventy-three applicants. The Board has lately been augmented from nine to fifteen members by permission of the Local Government Board.

The Industrial School for Boys, Ashford, Kent.—The first block of buildings is now in course of erection at Kingsnorth, near Ashford, and will be completed about August. The first contractor abandoned the work, and the contract has since been taken by Mr. George Punnett, of Tonbridge. Between thirty and forty men are now busily at work.

The Hull Bricklayers.—The bricklayers of Hull and their labourers recently resolved to turn out, in the event of their demand for an increase of 4s. per week not being complied with. At the eleventh hour the masters agreed to meet the men half-way, and this arrangement being considered satisfactory, work has not been interrupted. The bricklayers are therefore now receiving 34s. per week, instead of 32s., and the labourers 26s. per week. The building trade is brisk, although there are whole blocks of houses finished, but unoccupied.

Presentation to a Young Architect.—Last week a few of the friends of Mr. Robert Goodwin presented him with a gold watch, on the occasion of his beginning practice as an architect on his own account. Mr. T. Gildard, in a few well-chosen words, presented the gift. The watch bears the following inscription:—"Presented to Mr. Robert Goodwin, by the assistants and a few friends, as a mark of esteem, on his leaving the office of Messrs. A. & G. Thomson, architects, Glasgow. 22nd April, 1875."

The Restoration of Darnall Church.—The re-opening services after the restoration of the Darnall Parish Church were held on Wednesday. The whole of the work was done under the superintendence of Mr. Marcus Flockton, architect. The Corporation have been induced to light up the new clock with gas, and it is now one of the best clocks in the district. The total cost of the alterations is about 1,200*l.*, and of that sum about 700*l.* have already been subscribed and promised.

Fatal Accident from the Fall of a Cornice.—South Dalton Hall, near Beverley, the seat of Lord Hotham, is in course of re-erection, and men are employed at the works. On Monday evening a heavy cornice gave way, and fell upon a scaffold, upon which several men were at work. One man, a mason from Pocklington, named Robert Fielding, died in a few minutes, and William Akester, bricklayer, of Bishop Burton, lies at the hall in a very precarious state. Two other men were removed to the Hull Infirmary in a mutilated state.

International Exhibition of 1876, Philadelphia.—The applications for space in the British section of this exhibition are numerous, and of a satisfactory character. In consequence, however, of arrangements recently communicated, it will be possible for the British executive to receive applications from intending exhibitors, addressed to 5, Craig's-court, Charing-cross, London, up to the 15th of May inclusive.

New System of Street Watering.—The City Commissioners of Sewers have resolved to make a trial of a new system of street watering, suggested by Mr. Rudkin, one of the members of the commission. The principle of the system consists of a watering-pipe laid along the centre of the carriage-way, below the surface. It is to be tried along one-third of the length of Newgate-street, on that thoroughfare being repaved.

Reconstruction of Hope Hall.—This building, which formerly belonged to Mr. Macfie, some time ago changed hands, and was purchased by a few gentlemen, who desired to retain it for religious meetings, lectures, and social gatherings. The alterations have been made under the superintendence of Messrs. Parslow & Clarke, architects. The contractors are Messrs. Nicholson & Ayre, of Wellington-road.

The Pollution of the Thames.—To avoid the heavy penalties threatened by the Conservators for polluting the River Thames, the Kingston Corporation have entered into an arrangement with the Native Guano Company for dealing with the sewage of the town. The necessary works are proposed to be erected on the aits below Kingston Bridge. Opposition is beginning to show itself.

Royal Institution of Great Britain.—Professor Duncan's third lecture on the grander features of physical geography, delivered on the 20th ult., gave, in a very concise form, an account of the agents of water denudation by which the earth's surface has been sculptured into its present form, and the illustrations that were selected possessed an interest in themselves.

Cæsar's Camp, Wimbledon-common.—The Wimbledon and Putney Common Conservators have not been idle, and have filed a bill in Chancery to restrain Mr. Dixon (a lessee from Mr. J. S. W. S. Erle Drax, the owner of the ground) from commencing building operations, and an injunction was granted as prayed, pending a full examination into the questions at issue.

The late Mr. R. W. Billing's Collection. This is to be sold by auction this month, at the deceased gentleman's residence, in Wandsworth-lane, Putney. The collection consists of English, Dutch, Venetian, and French goblets, old China, candelabra, shoe and waste buckles, an ancient iron chest, of Flemish work, richly decorated; curious old fire-arms and weapons of various kinds; suits of armour, together with an interesting collection of old wood carving and ancient furniture.

Accident at the Delabole Quarries.—One man was killed instantaneously, and another fearfully injured, in the Delabole Slate Quarries, North Cornwall, last week, by a large stone which was projected from a blast 300 ft. below where they were working.

Orphan Home at Aldershott.—On the 21st ult. Lieutenant-General Sir Thomas Steele, K.C.B., laid the foundation-stone of a new United Soldiers' and Civilians' Orphan Home, near the North Camp, in the presence of a large number of ladies and gentlemen.

Gloucestershire.—Mr. Edwin Crawshay is having a new mansion built at Blaisdon. Messrs. Waller & Son, of Gloucester, are the architects, and Mr. J. Clutterbuck is the contractor. The cost is estimated at 30,000*l.*

TENDERS

For alterations and decorations to the Globe, Vauxhall-walk, for Messrs. Tusten & Roope. Mr. A. J. Rouse, architect:—

Turner & Enderson	£313 6 0
Blandford & Co.	311 0 0
Green & Son	290 0 0
Lose	250 0 0
Brindle (accepted)	245 10 0

For schools for 425 children and two residences at Hednesford for the Cannock School Board. Messrs. Hay & Oliver, architects. Mr. A. Deane, surveyor:—

	Schools.	Boundaries.
Goodman	£3,175 0	£280 0
Whittome	3,028 0	260 0
Rowley & Lynex	2,969 0	232 0
Barton	2,940 0	260 0
Webber (accepted)	2,677 6	236 4
Crisp & Son	2,700 0	100 0

For the erection of a residence at Woodsetton, Sedgley, Staffordshire, for Mr. Henry Round. Messrs. Round & Beddoe, architects. Quantities supplied:—

Stockton & Son (accepted)	£997 0 0
Tranter	940 0 0

For villa residence and studio, Steele's-road, Haverstock-hill, for Mr. J. D. Linton. Messrs. Batterbury & Huxley, architects. Quantities supplied. First contract:—

Grimwood & Sons	£2,141 0 0
Linsell & Son (accepted)	2,000 0 0

For alterations and repairs for Mr. A. Bertlin, 42, Park-road, Haverstock-hill. Messrs. Batterbury & Huxley, architects:—

Manley & Rogers (accepted)	£300 0 0

For the erection of buildings in Alfred-mews. Mr. Charles Fowler, architect. Quantities by Mr. Henry Lovegrove:—

Phillipson	£2,200 0 0
Bangs & Co.	1,908 0 0
Patman & Co.	1,748 0 0
Hobson	1,724 0 0
Stimpson & Co.	1,710 0 0
Scrivener & White	1,609 0 0

For additions in rear of No. 50, Foley-place, for Mr. J. Landley:—

Blandford & Co. (accepted)	£120 0 0

For alterations and additions to Trafalgar House, Walham-green, for the Fulham Board of Works:—

Feltham	£475 11 0
Smith	437 9 7
Eyles	385 0 0
Stephenson	379 0 0
Warr	375 0 0
Blandford & Co.	375 0 0
Lose	358 0 0
Wigmore	349 0 0
Cook	325 0 0
White	300 0 0
Johnson	283 0 0

For building a villa residence at Thornton-heath, Surrey. Mr. Josiah Houle, architect:—

Abbott & Son	£3,700 0 0
High	3,650 0 0
Macey	3,154 0 0
Sewell & Son	3,136 0 0
Jarrett	3,087 0 0
Scrivener & White	3,050 0 0
Langmead & Way	2,948 0 0

For building a villa residence in Seven Sisters'-road, Finsbury Park. Mr. Josiah Houle, architect:—

G. & S. Fisher	£1,875 0 0
Kelly, Bros.	1,833 0 0
Scrivener & White	1,758 0 0
Cooke & Green	1,665 0 0
Langmead & Way	1,560 0 0

For tenement blocks for the Artisans' Progressive Dwelling-house Company, Limited. Mr. Frank C. Thicke, architect. Quantities by Mr. A. Vicars:—

Block A. Two Blocks.	Homerton. £.	East Ham. £.	Forest-hill. £.	Battersea. £.
Heath	1,600	1,650	1,600	1,430
Langmead & Way	1,545	1,560	1,540	1,500
Nixon & Son	1,512	1,512	1,512	1,446
Smith	1,498	1,498	1,498	1,498
Wagner	1,435	1,450	1,497	1,397
Sharpington & Cole	1,360	1,360	1,370	1,330
Wyatt	820	820	840	780
Block B. Two Blocks.				
Langmead & Way	1,578	1,595	1,555	1,520
Nixon & Sons	1,538	1,538	1,538	1,464
Heath	1,530	1,450	1,420	1,395
Smith	1,374	1,374	1,374	1,374
Wagner	1,348	1,363	1,402	1,312
Sharpington & Cole	1,300	1,300	1,310	1,270
Wyatt	980	980	1,000	960

For the erection of Board schools, residence, &c., at Walker, Newcastle-on-Tyne, for the Long Benton School Board, consisting of girls' and infants' school in one block, and boys' school and caretaker's house, and all boundary walling and drains, and other works connected therewith. The schools are to be heated with hot-water pipes. Mr. John Lamb, architect. Quantities by Mr. R. Carpenter:—

Ferguson	£10,970 0 0
Hudspith	10,694 0 0
Nicholson	10,400 0 0
Scott	9,750 0 0
Simpson	9,695 0 0
Angus	9,371 0 0

For building new infection wards at the Sudbury Union Workhouse, Suffolk. Mr. W. R. Firmin, architect. Quantities by Mr. R. Carpenter:—

Wanford	£628 0 0
Green (accepted)	596 0 0

For erection of boundary walls, fencing, &c., at Camberwell Cemetery, Forest-hill-road. Messrs. W. Berriman & Son, architects:—

Linfield	£2,300 0 0
Johnson	1,590 0 0
Chappin	1,570 0 0
Waterson	1,522 0 0
G. & S. Fisher	1,497 0 0
Wainwright	1,325 0 0
Dover	815 0 0

*** What does this mean?

For additions to Aged Pilgrims' Asylum, Hornsey-rise. Mr. F. Boreham, architect. Quantities by Mr. C. Brooks:—

Newman & Mann	£8,984 0 0
Scrivener & White	8,845 0 0
Hill, Higgs, & Hill	8,600 0 0
Macey	8,549 0 0
Dove, Bros.	8,450 0 0
Bayes & Ramage	8,250 0 0
Roberts	8,247 0 0
Southcott & Co.	7,959 0 0
Niblett & Son*	7,375 0 0

* Accepted conditionally.

TO CORRESPONDENTS.

Westgate-on-Sea.—We are requested to state that the contractors for the iron work are "The Thames Bank Iron Company," not the "Thames Iron Works."

G. R.—W. & L.—F. P.—R. K.—W. B. G. B.—R. M. F.—H. R. W.—R. T.—G. & S. F.—H. S.—Fellow of seven years' standing.—An Old Fellow.—An Associate.—W. H. W.—W. C.—H. St. J.—B.—W. G. S.—J. D.—J. W.—J. G. C.—W. B.—C. C. O.—P.—R. & Co.—J. L.—L. & Co.—H. B.—E. C. R.—D. L.—M. G.—A. J. R.—T. O.—W. & Co.—C. R.—B. & H.—H. L.—W. H. P.—E. C. H. (thanks; very full).—W. P. (thanks).—M. G. (shall have attention next week).—R. W. M. (next week).—J. W. (next week).—R. M. Y. (next week).—J. C. (next week).

We are compelled to decline pointing out books and giving addresses.

All statements of facts, list of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

DAYLIGHT IN DARK ROOMS

BY MEANS OF

Chappuis' Patent Reflectors.

MANUFACTORY:

69, FLEET STREET.